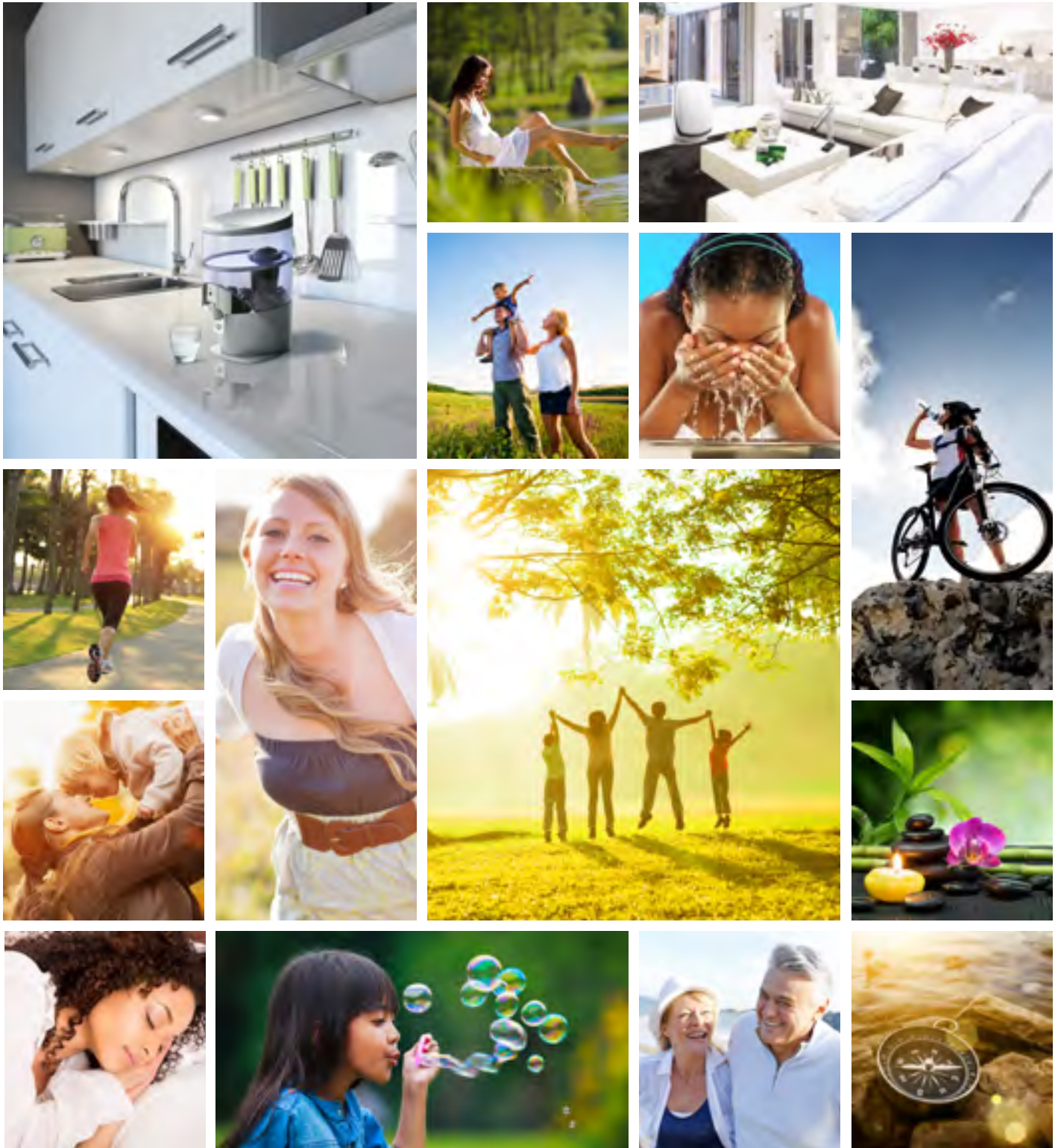




**NIKKEN**<sup>®</sup> Discover it. Live it.



Everything you need to know  
about Nikken's product ranges

PRODUCT TRAINING MANUAL







# Welcome to the first ever edition of the Nikken Product Training Manual



Packed full of information, the Product Training Manual gives you all the facts, figures, studies and details you'll need to talk informatively with your customers about Nikken's products.

Whether you're completely new to Nikken or you're an experienced Nikken Consultant, this document has been designed to be easy to use.

**You can choose to read through the 'science'...**

We know we need air, water, light, sleep and nutrition, but this section really explains what our bodies do with them and how they can affect us.

**That goes hand in hand with the 'technology'...**

The technology behind our products – how they're built, how they work, and why we've made them that way.

**Use the key facts...**

Each section has some key information pulled out; if you've got a customer who's in a hurry, these are some key points you can use.

**Or there are the product details and fact sheets...**

You know your customers best. In this section there's a little bit of science, a little bit of technology, and this is also where you'll find dimensions, filter replacement information, and 'how to use' details.

**It's completely up to you.**

We have gathered relevant research from world-renowned universities and laboratories, listing the most up-to-date public studies for your information. Everything from the thinking behind our magnetics range to the different seaweeds in our True Elements™ skincare is explained here.

We hope you find the Product Training Manual useful – we look forward to adding our exciting new products to it in the future.

If you have any queries about any of our products or tools, please don't hesitate to contact the Nikken Customer Services team who will be more than happy to help you.



Don't forget to mention to your customers...



MIND



BODY



FAMILY



SOCIETY



FINANCES

## The Five Pillars Philosophy

1. Healthy mind
2. Healthy body
3. Healthy family
4. Healthy society
5. Healthy finances

We believe that these five elements in balance are the key to a healthy, happy future.

Please note that Nikken does not commercialise medical devices. As an Independent Consultant, you cannot make medical claims about our products.

The results and effects described may not occur in all individuals. The legal rules on advertisement are very strict and there are three types of rules that you have to respect to be in compliance: National Law, European Union (EU) law and our Policies and Compensation plan. For more details see P107 of this manual.

If you have any questions, please write to [compliancedept@nikken.co.uk](mailto:compliancedept@nikken.co.uk).

## The Nikken Wellness Home<sup>®</sup>



The Nikken products are categorised into three specific areas:

- Improved rest and relaxation through our magnetic and sleep products
- A better environment – clean air, natural light and alkaline water
- Complete nutrition and skincare support based on natural ingredients and organic principles.

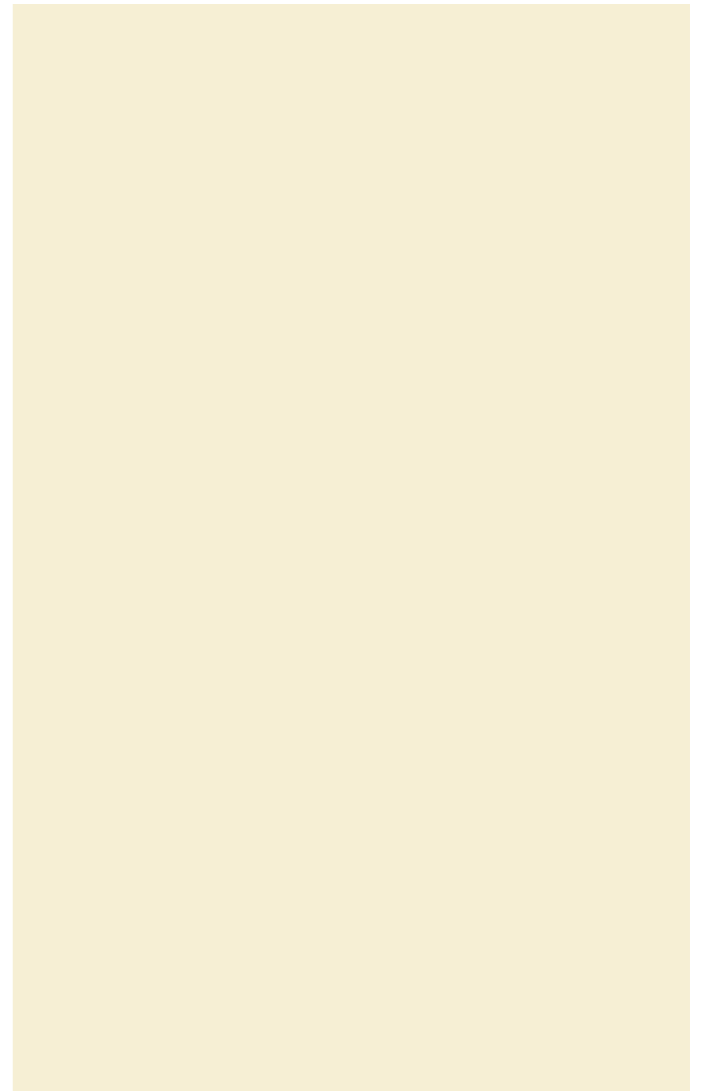
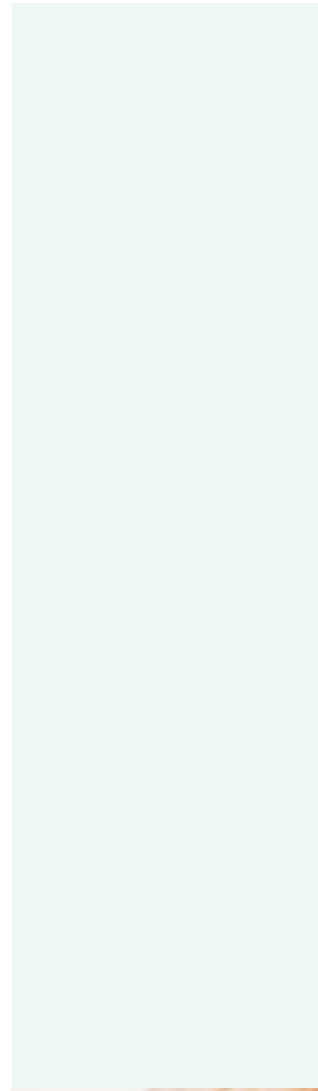
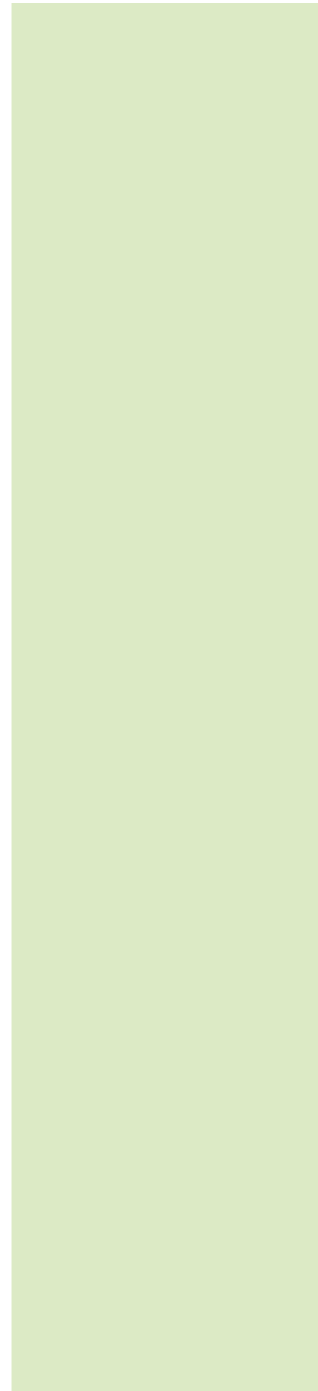
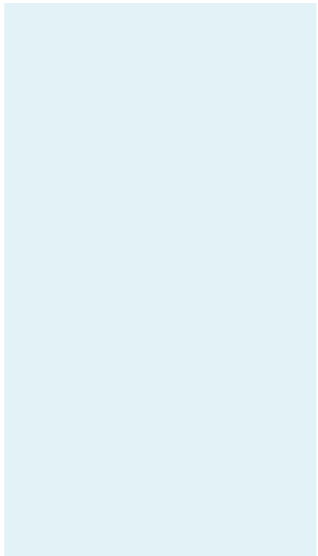
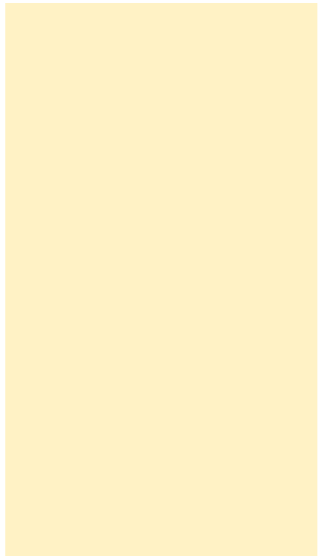
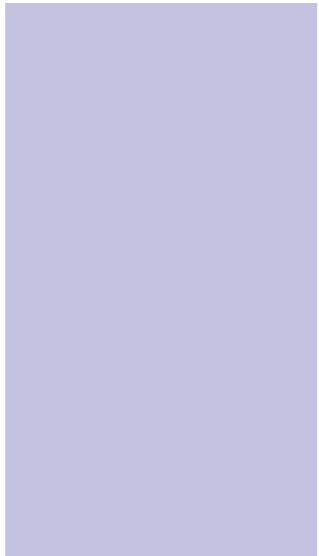
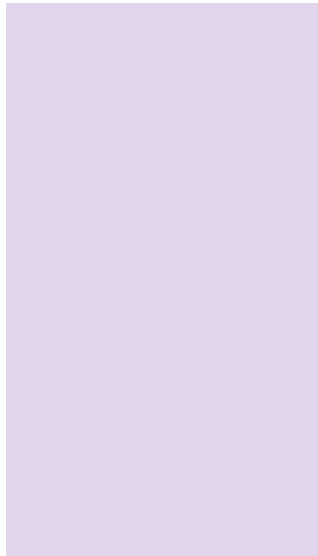
These areas create your Wellness Home; by making improvements in each of them, you can make your home the happiest, healthiest and safest place for you and your family to live.

It's never been a more exciting time to be a part of the Nikken family. We hope this first edition of the Product Training Manual provides you with another useful tool to grow your business.





# Contents



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# Sleep

“The quality of your health starts with a good night's sleep”<sup>1</sup>

## The Why

### Sleep and us

According to sleep scientist Russell Foster, Professor of Neuroscience at Oxford University, modern society has developed an arrogant disregard for sleep's essential job: keeping the mind and body healthy.

Most people think that tiredness is just an inconvenience – some professionals even take pride in how little sleep they need to get by. However, sleep is really an inherent part of our health, only instead of immediate consequences measured in days and weeks, the severest consequences tend to occur longer-term, and therefore, we often fail to connect them with sleep.

A key concept is called 'social jetlag'<sup>2</sup> – the difference between when our bodies want to get up in the morning naturally and when we force ourselves out of bed with an alarm clock.

This concept is important because long-term social jetlag can activate the 'stress axis' in the body. The stress axis can be associated with immune suppression, so a greater chance of infection, and an increased chance of cardiovascular disease and diabetes too.

If you wake up tired and feel the need to drink coffee throughout the day to stay alert it's likely that you need more, or higher quality, sleep.

There are other symptoms associated with poor or insufficient sleep – short temper, lack of focus, and difficulty concentrating or making decisions are just a few of them. Over a longer period of time, lack of sleep or poor sleep can cause people to feel more depressed; it can also put them at a higher risk of injury and accidents at home, work, and whilst driving. Performance after a long, hard day can commonly be the equivalent of drinking two glasses of wine<sup>3</sup> – at or above the alcohol driving limit across Europe – before anyone even has a drink!

**“Poor sleep is linked to depression, heart disease, strokes, lung disorders, traffic and industrial accidents, and divorce, yet sleep is largely ignored as an important aspect of health”<sup>15</sup>**

Poor sleepers are:<sup>4</sup>

- Twice as likely to suffer from energy deficiency
- Three times as likely to experience low mood, lack of concentration and struggle to get things done
- Four times as likely to have relationship problems
- ...“at significantly greater risk of health problems ranging from depression, anxiety and bipolar disorder to immune deficiency and heart disease”

Poor sleep is also an expensive cause of days off work and is associated with arthritis, high blood pressure, and Alzheimer's to name just a few more issues.

In fact, feeling exhausted is so common that it has its own acronym – TATT (Tired All The Time) syndrome.<sup>5</sup>

**“Tiredness is also one of the most common complaints which are brought to GPs, I see loads and loads of patients who complain of feeling exhausted, even though they're sleeping well. Often it's been going on for several months. It's unusual to find anything physically wrong. Most of the time, fatigue is linked with mood and the accumulation of lots of little stresses in life”<sup>5</sup>**

In addition to this, regularly drinking coffee or energy drinks may act as a short-term pick-me-up but they can actually disrupt natural energy levels and sleep patterns even further. The best solution is better sleep, not external stimulants.

### The benefits of a good night's sleep

In fact, when it comes to sleep, most people will simply assume they've not had enough sleep, not that they need to improve the quality of their sleep, yet a good night's sleep can underpin all aspects of health. An information guide about sleep from the British National Health Service includes a list of seven benefits:

- Boosts your immunity
- Assists with weight loss (studies<sup>6</sup> have shown that people who sleep less than seven hours a day are 30% more likely to be obese)
- Boosts your mental wellbeing by reducing mood disorders like depression and anxiety
- Helps prevent diabetes
- Increases sex drive
- Wards off heart disease
- Increases fertility

Generally we find it difficult to change deep-seated habits, and motivation for change often occurs retrospectively after health problems have already been identified. As a society, we grow up in an environment with collective habits and behaviours, but, if we wish to improve our own health, we need to make different choices and lifestyle decisions.

In short, it may be common to feel tired all the time but it isn't normal<sup>6</sup>, and the growth of stress-related illnesses highlights the consequences. By changing our behaviours, which include the way we sleep, we can sleep more and experience better sleep.



# The Science

## Sleep for recovery

As would be expected from any complex maintenance process, sleep is when our bodies are designed to recover from the stresses of the day before and to prepare for the stresses of the day ahead. With the current concerns about the increasing cases of dementia, researchers have recently shown that an important function of sleep is to wash away the waste toxins built up during the day's activities. Their research has shown that the brain has its own network of pipes called the glymphatic system, which carries waste material out of the brain, and when we're asleep this system is up to 10 times more active. Conversely, failing to clear away waste proteins seems to play a role in brain disorders: both Alzheimer's and Parkinson's can be associated with a build-up of damaged proteins in the brain.<sup>7</sup>

**“The brain only has limited energy at its disposal and it appears that it must choose between two different functional states - awake and aware, or asleep and cleaning up”** Said researcher Dr Maiken Nedergaard.<sup>16</sup>



There are other interesting studies regarding the consequences of poor sleep:

A bad night's sleep can cause a reduction in Leptin (a hormone produced by fat cells), which signals insufficient metabolic reserves and the need to eat more calories. It also increases the hormone Ghrelin, which triggers appetite. It is this imbalance that can then upset people's metabolisms, leading to over-eating and weight gain. Sleep is also required for brain processing and memory consolidation; studies show that if you prevent people from sleeping after learning a task their ability to learn is diminished.<sup>8</sup>

University of Chicago researchers<sup>9</sup> found that dieters who were well rested lost more fat — 56% of their weight loss — than those who were sleep deprived, who lost more muscle mass. Dieters in the study also felt hungrier when they got less sleep. A study from the University of California concurred with this, finding that a lack of sleep may fuel your junk food habit, as it hinders our impulse and decision making.<sup>10</sup>

A two-year research study<sup>11</sup> found that, on average, people with uncomfortable beds slept one hour less each night than those with a comfortable mattress. A study in Oklahoma State University<sup>17</sup> also found that participants with a mattress five years old or more reported significant improvement in sleep quality and comfort when sleeping on a new mattress.

Sleep occurs in recurring cycles of lighter and heavier sleep, each ideally lasting around 90-110 minutes when undisturbed. Sleep is divided into two basic types: rapid eye movement (REM) sleep and non-REM sleep (with three different stages).

## Non-REM sleep

Stage one – the lightest sleep phase, when you can easily be awakened by noises or other disturbances. During this first stage of sleep your eyes move slowly, your muscles relax with occasional twitches, and your heart and breathing rates begin to slow.

Stage two – breathing and heart rate slow, eye movements stop, and brain waves slow with occasional bursts of rapid waves. You spend about half the night in this stage.

Stage three – the very deep sleep phase, during which it is very difficult to be awakened. Breathing and heart rates are at their slowest, and the brain also produces extremely slow waves called Delta waves. Children and adults who sleepwalk tend to do so during stage three of non-REM sleep. This phase is considered to be the 'restorative' stage of sleep necessary for feeling well-rested and energetic during the day.

### Key facts

- We spend 20% less time sleeping today than we did a century ago<sup>12</sup>
- Sleep can affect weight loss<sup>13</sup>
- Sleep is affected by circadian rhythms – 24-hour biological processes
- Too much caffeine can affect quality of sleep<sup>14</sup>
- There are two stages of sleep – non-REM and REM sleep
- REM sleep occurs 60-90 minutes after we fall asleep.

## REM sleep

Rapid Eye Movement sleep usually begins about 60-90 minutes after you fall asleep and ideally occurs 3-5 times a night. During REM sleep, dreaming occurs and your eyes move rapidly in different directions, even though your eyelids stay closed. Your breathing also becomes more rapid, irregular, and shallow, and your heart rate and blood pressure increase. During this type of sleep your brain is most active but your arm and leg muscles are temporarily paralysed so that you cannot 'act out' any dreams you may be having.

However, it may be of interest that sleep does not progress through these different stages in sequence. Sleep begins in stage one and progresses into stages two and three; after stage three, stage two is repeated before we enter REM sleep. Once REM sleep is over, the body usually returns to stage two sleep. Overall, the body cycles through these stages approximately four or five times throughout the night. As you sleep, REM sleep time becomes longer, while time spent in stage three non-REM sleep becomes shorter. While the first cycle of REM sleep might last only a short amount of time, each cycle will become longer so that the stage of REM sleep can last up to an hour as sleep progresses. By the time you wake up, nearly all your sleep time will be in stages one and two of non-REM sleep.

If REM sleep is severely disrupted during one night, REM sleep time is typically longer than normal in subsequent nights until you catch up. Overall, almost one-half of your total sleep time is spent in stage two non-REM sleep and about one-fifth in deep sleep (stage three of non-REM sleep) and REM sleep. In contrast, infants spend half or more of their total sleep time in REM sleep. Gradually, as they grow, the percentage of total sleep time they spend in REM continues to decrease until it reaches the one-fifth level typical of later childhood and adulthood.

**“Healthy sleep has been empirically proven to be the single most important determinant in predicting longevity, more important than diet, exercise, or heredity”**

Dr William Dement, founder of the Sleep Research Center at Stanford University.

All websites accessed on 21st July 2014

1 <http://www.sleepcouncil.org.uk/wp-content/uploads/2013/01/Get-a-Good-Nights-Sleep.pdf>

2 <http://www.ncbi.nlm.nih.gov/pubmed/16687322>

3 <http://www.bbc.co.uk/science/humanbody/sleep/articles/whatisleep.shtml>

4 <http://www.mentalhealth.org.uk/our-news/news-archive/2011/2011-01-27/>

5 <http://www.nhs.uk/Livewell/tiredness-and-fatigue/Pages/why-am-I-tired.aspx>

6 <http://www.nhs.uk/Livewell/tiredness-and-fatigue/Pages/lack-of-sleep-health-risks.aspx>

7 [http://www.urmc.rochester.edu/labs/nedergaard-lab/projects/glymphatic\\_system](http://www.urmc.rochester.edu/labs/nedergaard-lab/projects/glymphatic_system)

8 <http://www.sleepcouncil.org.uk/2014/03/%EF%BB%BF%EF%BB%BFwhy-technology-is-making-us-fat/>

9 [http://www.huffingtonpost.com/2011/02/02/sleep-health-benefits\\_n\\_817803.html](http://www.huffingtonpost.com/2011/02/02/sleep-health-benefits_n_817803.html)

10 <https://newscenter.berkeley.edu/2013/08/06/poor-sleep-junk-food/>

11 <http://www.sleepcouncil.org.uk/the-seven-year-hitch/>

12 <http://www.mapsofworld.com/poll/are-we-becoming-a-sleepless-generation-infographic-text.html>

13 <http://www.webmd.com/diet/features/lose-weight-while-sleeping>

14 <http://sleepfoundation.org/sleep-topics/caffeine-and-sleep>

15 <http://news.bbc.co.uk/1/mobile/health/8245578.stm>

16 <http://www.bbc.co.uk/news/health-24567412>

17 [http://www.bettersleep.org/pdfs/BetterSleepGuide\\_English.pdf](http://www.bettersleep.org/pdfs/BetterSleepGuide_English.pdf)



# The Technology

## The adaptive Sleep System

Most people, when choosing a bed, only really give thought to their mattress – is it comfortable to lie on and will it support their back if they have back problems? However, in order to offer the highest quality sleep - and commensurate rest and recovery - there are a range of considerations which need to be resolved in the sleep environment:

- Physical comfort (i.e an absence of pressure points)
- Support
- The thermal environment
- Moisture control
- Ventilation
- Stimulation
- Hygiene
- Energetic environment.

Each of these, separately or together, will affect our sleep quality for better or worse.

Thus Nikken has created a sleep system (mattress pad, pillow and quilt) that acts as a 'sleep cocoon' and offers each person an environment which can adapt specifically to them.

Developed based on fundamental research into all the aspects of a sleep environment which affect our quality of sleep, Nikken has then added their signature technologies in natural energies and materials, bringing three fundamental energies from nature into our bedrooms:

- The relaxation and balance of advanced magnetic technologies
- The thermal comfort and systemic support of far infrared energy
- The passive negative-ion technology to bring us the peace and tranquility of the forest waterfall

In summary, this is as near to the feeling of sleeping in nature as we can achieve in the comfort of our bedrooms. Our Sleep System offers unique features designed to help you experience the processes of physical and mental recharging that form the basis of sleep.

No other product or system has brought together this unique set of technologies and materials, that are intended to make your surroundings more naturally conducive to healthy, restful sleeping.



## Revolutionary design

The Nikken Naturest® Sleep System consists of three separate components – the Naturest® Pillow, Naturest® Kenkopad®, and KenkoDream® Quilt.

The Nikken Naturest® Kenkopad® is designed from (non-allergenic) natural latex foam, an ecologically sound and renewable resource, sculpted into an 'egg-crate' surface with specially treated tips. This provides for a relaxing massage-effect while sleeping and allows for air movement and dissipation of the body's natural perspiration during the night. The latex rubber yields to pressure for an ideal degree of sleep comfort, and it is also naturally hygienic, as it's resistant to microbial growth and dust mites. In addition, the latex used in the Nikken Naturest® Kenkopad® is a completely renewable material. In contrast to the fossil fuels used to make other mattresses or pillows, the production of latex actually helps to preserve natural resources by maintaining forested areas that would otherwise be cleared.

Using Nikken's hallmark magnetic technology, the mattress is then supplemented with a specially designed magnetic field for relaxation and improved sleep quality, using Nikken's unique RAM™ technology magnetic arrays (for more information, refer to p83).

Finally, the Naturest® Kenkopad® is covered in a woven blend of organic bamboo and cotton fibres - all fully renewable resources, produced without chemical pesticides, insecticides or fertilisers. These natural materials help to maintain breathability for natural regulation of temperature and hygiene.

The Nikken Naturest® Pillow is designed to include the exceptional features of the Naturest® Kenkopad®, including the RAM™ technology magnetic arrays for the neck and shoulders. It's also filled with shredded latex. The latex filler has the advantage of latex's natural resilience to prevent flatness — a common effect when sleeping on ordinary down-filled or foam pillows. The Naturest® Pillow offers custom firmness control by subtracting or replacing the latex filler to achieve the desired level of softness or support, and an internal support collar helps to provide correct head and neck alignment. Finally, the Naturest® Pillow uses the same natural-fibre cover as the Naturest® Kenkopad® for a cool, comfortable and breathable surface.

The KenkoDream® Quilt completes the Sleep System with particular emphasis on a comfortable thermal environment. The design incorporates a special ceramic into the fibres which offers an environment rich in a special kind of heat called Far-Infrared – long-wavelength heat. This penetrates deep into the body and provides core comfort, rather than surface heat. It also acts as an 'intelligent' insulation – adapting the insulation value of the quilt so that the body can be comfortable over a much wider range of temperatures. Far-Infrared heat can also help the body's elimination processes and can be found in other applications such as Far-Infrared saunas – the KenkoDream® Quilt offers these benefits simply by sleeping in our own beds! Another special technology incorporated into the quilt is a special passive negative-ion technology, which helps create a sense of comfort and relaxation, and this is complemented by some special magnetic components to complete the 'magnetic cocoon'.

Through this unique design of the sleep environment, a Nikken Sleep System can offer the best chance for optimal sleep. It also helps you to experience better rest and relaxation, an improved response to life's cumulative stresses, and other potential benefits. This can include an improved immune system, so better resistance to illnesses; improved recovery from the stresses of the day; better physical performance; improved thinking, memory, and brain function; and better quality of life.

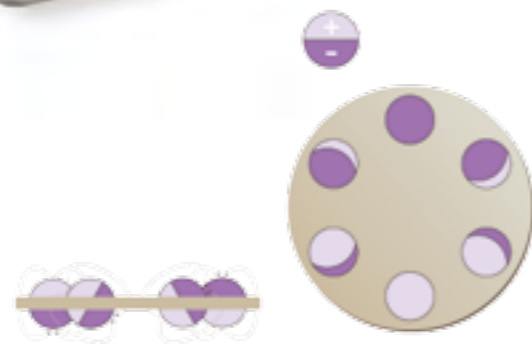




## Naturest® Kenkopad®

Transform your regular mattress into a uniquely designed, adaptive sleep environment

- Non-allergenic latex foundation moulds to your body's contours for better comfort and support
- Cocooning revolutionary RAM™ (radial-axis magnetism) Technology
- Made from ecologically sound and renewable non-allergenic latex
- Gradient-density nodules provide a gentle massage-like stimulation
- Latex foundation wicks away moisture and promotes improved ventilation
- Natural materials meet fire regulations without flame retardants or other chemicals



### Advanced relaxation technology

The Nikken Naturest® Kenkopad® is designed from latex foam sculpted into an 'egg-crate' surface with specially treated tips. These tips provide a relaxing massage effect while sleeping and allow for air movement and dissipation of the body's natural perspiration during the night. The latex also yields to pressure for an ideal degree of sleep comfort and is naturally hygienic due to its resistance to microbial growth and dust mites.

Using Nikken's unique RAM™ technology magnetic arrays, the Naturest® Kenkopad® is complemented with a specially designed magnetic field for relaxation and improved sleep quality.

### Natural, renewable materials

The Naturest® Kenkopad® is made from blended non-allergenic latex foam. The cover is woven from all-natural, fully renewable cotton, wool,

and bamboo fibres, produced without chemical pesticides or insecticides. These natural materials improve the breathability, assist with the dissipation of moisture, and consequently help create a drier, more comfortable, sleeping environment.

### How to use

Place the Naturest® Kenkopad® on top of your regular mattress with the nodules facing upwards. Make sure it is placed so that the tag and zipper are at the top where your head will rest.

### Care instructions

Spot clean only, using mild detergent and warm water. Do not oversaturate. Air-dry at room temperature away from sunlight or excessive heat. If folding the Naturest Kenkopad is necessary, fold with the flat side outward. Do not attempt to fold with the nodules facing out.

<b>Technology</b>	RAM™ Magnetic Technology
<b>Magnet strength</b>	3,200 Gauss
<b>Materials</b>	Synthetic latex: 38%; natural latex: 34%; graphite: 24%; wool batting: 4%
<b>Magnetic Discs</b>	13/19/26 per pad depending on size, providing 3,200 gauss strength per Naturest® Kenkopad®
<b>Outer cover</b>	Natural fibres; a mix of organic cotton and bamboo.

1110 Naturest® Kenkopad® 74x185

1111 Naturest® Kenkopad® 90x190

1112 Naturest® Kenkopad® 135x190

1113 Naturest® Kenkopad® 150x200

## KenkoDream® Quilt

A perfectly balanced quilt for all climates

- Exceptional Far-Infrared temperature regulation
- Increases the sensation of wellbeing by releasing negative ions
- Outer and inner covers of breathable, natural fibres
- Made from ecologically sound and non-allergenic natural materials
- Machine washable

### Maintaining a constant temperature

The KenkoDream® Quilt incorporates Far-Infrared Technology - made of ceramic coated, reflective fibres - in its natural, anti-bacterial, and breathable cotton cover. Absorbing heat energy from the environment - body heat for instance - Far-Infrared Technology radiates it back at as gentle, calming warmth to help soothe the body throughout the night. This helps to ease tension, meaning that your sleep is more refreshing. The fibres also release any excess heat, helping you to maintain a constant temperature that's not too hot or too cold.

### A natural environment

With built-in negative ion technology, the KenkoDream® Quilt creates an atmosphere of negative ions. Negative ions have been associated with the calm relaxation of natural environments such as forests or by the sea, and they provide you with the sensation of sleeping in nature. A magnetic array in the quilt further complements the magnetic field of the Naturest® Kenkopad®, so you have a full energy field enveloping your body throughout your sleep.

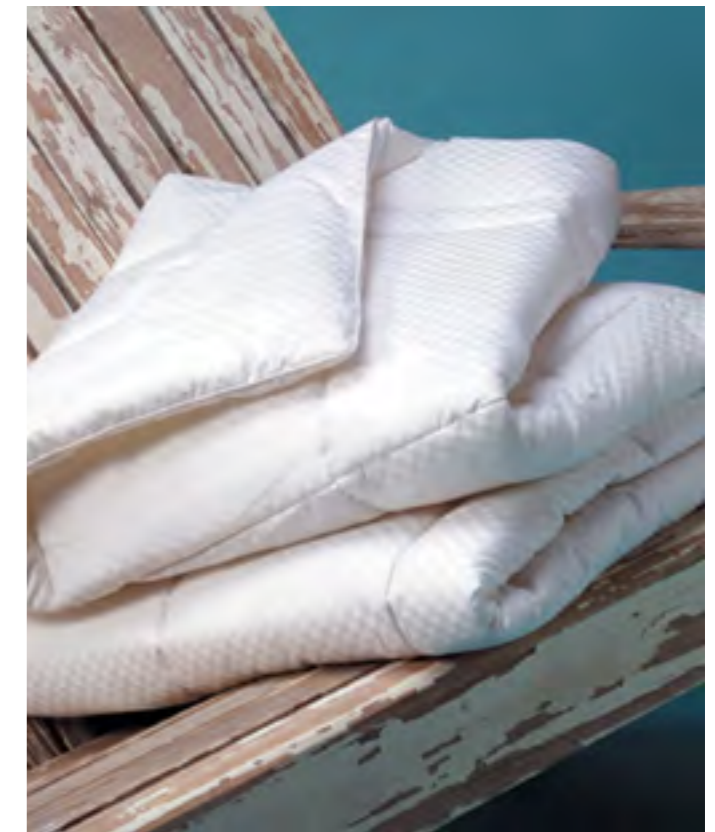
<b>Technology</b>	Field Gradient Technology, Negative Ion Technology, Far Infrared Technology
<b>Magnet strength</b>	800 Gauss
<b>Materials</b>	Ceramic polyester filling
<b>Inner lining</b>	Cotton with absorbed chitosan, a natural antibacterial agent: 100%
<b>Outer Cover</b>	Cotton: 100%, using dobby-weave for durability and to keep fill evenly distributed.

11270 KenkoDream® Quilt 135X200

11271 KenkoDream® Quilt 160x210

11272 KenkoDream® Quilt 200x200

11273 KenkoDream® Quilt 220x225



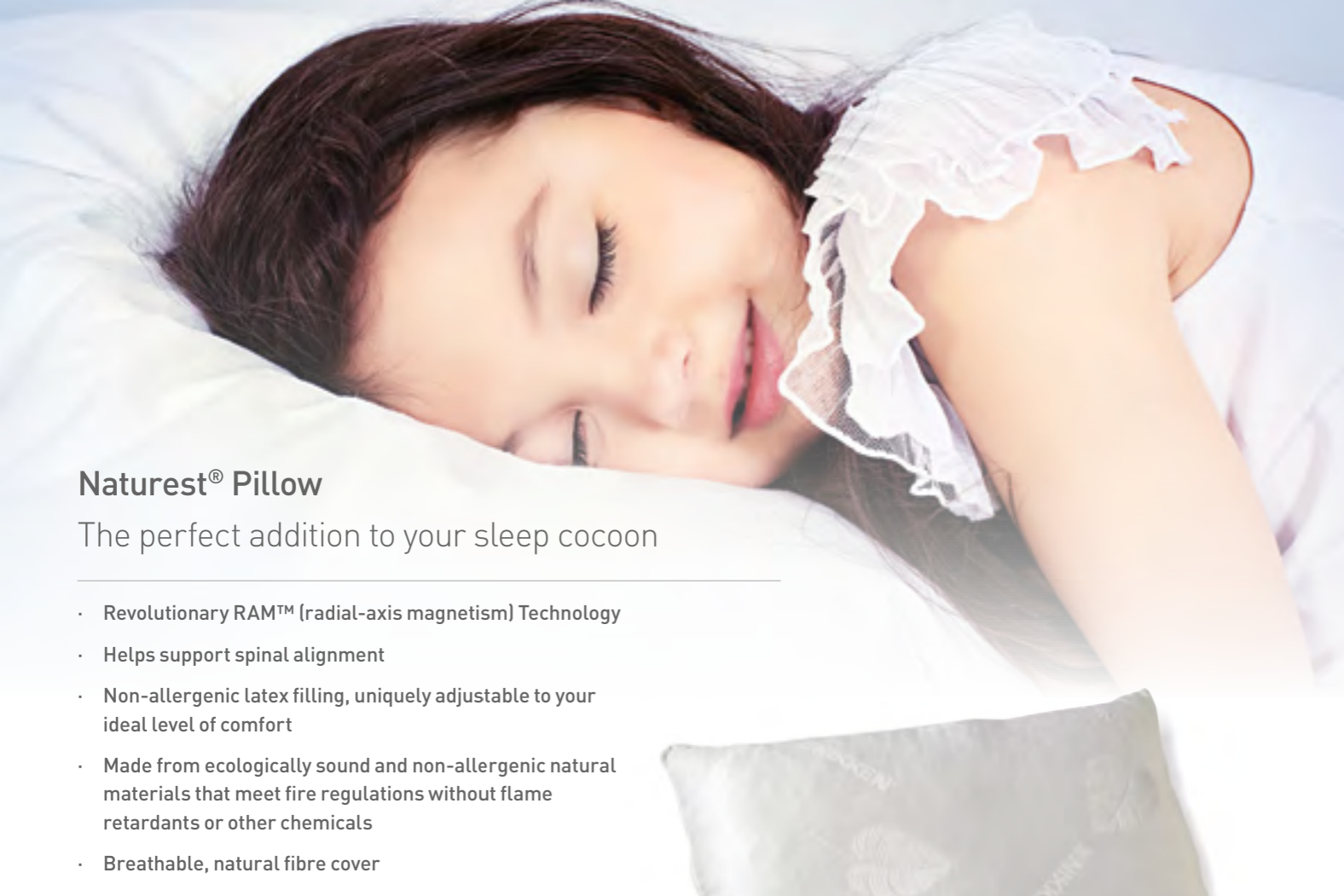
### How to use

Place KenkoDream® Quilt on the bed with the blue corner label facing up.

### Care Instructions

Machine wash at 40 degrees. Tumble dry warm.





## Naturest® Pillow

The perfect addition to your sleep cocoon

- Revolutionary RAM™ (radial-axis magnetism) Technology
- Helps support spinal alignment
- Non-allergenic latex filling, uniquely adjustable to your ideal level of comfort
- Made from ecologically sound and non-allergenic natural materials that meet fire regulations without flame retardants or other chemicals
- Breathable, natural fibre cover

### Supporting your natural sleeping position

Filled with naturally firm latex that prevents the pillow from becoming flat, the Naturest® Pillow is fully adjustable by simply adding or removing the filler. The Naturest® Pillow also incorporates a specially designed internal collar to ensure the most comfortable alignment for your head, neck, and spine. The breathable cover of natural bamboo and cotton fibres assist ventilation, helping to regulate your temperature to keep you comfortably cool.

### Deep sleep rejuvenation

The Naturest® Pillow is different from any other pillow you'll experience due to the RAM™ Technology design. As you achieve deep sleep the brain recharges, restoring your energy for the day to come. Highly portable, you can take the relaxing natural technology with you whenever you're travelling or staying away from home to feel the benefits of the magnetic energy. The Naturest® Pillow can be used alone or, to maximise your sleep environment, it can be used with the KenkoDream® Quilt and the Naturest® Kenkopad®.



### How to use

Place the Naturest® Pillow on the bed with the zipper on the bottom right-hand side, so that the orthopaedic support and RAM™ magnetic disks are in the optimum positions.

### Care instructions

Spot clean only, using mild detergent and warm water. Do not oversaturate. Air-dry at room temperature away from sunlight or excessive heat.

<b>Technology</b>	RAM™ Magnetic Technology
<b>Dimensions</b>	H 46.5 x W 62cm
<b>Magnet strength</b>	3200 Gauss
<b>Materials</b>	Synthetic latex: 48%; natural latex: 21%; graphite: 22%; wool batting: 9%
<b>Magnetic Discs</b>	Three per Naturest Pillow, providing 3,200 gauss strength
<b>Outer Cover</b>	Natural fibres; a mix of organic cotton and bamboo.

1115 Naturest® Pillow



## Kenko PowerSleep® Mask

Total relaxation for a great night's sleep

- Shaped-to-fit soft, breathable fabric makes it comfortable to wear for hours
- Small, compact, lightweight and portable, it comes with its own travel pouch
- DynaFlux® Magnetic Technology increases your natural energy field
- Far-Infrared Technology for gentle warming and temperature regulation
- Negative Ion Technology for more calming, natural sleep

### Advanced energy technology

The Kenko PowerSleep® Mask applies Nikken's advanced energy technologies to the head and eyes in a convenient way, as we often hold tension around the eyes, which can lead to the appearance of premature ageing. Combining DynaFlux® Technology to extend magnetic energy around your head, Far-Infrared, and Negative Ion Technologies, the Kenko Powersleep® Mask helps to calm your mind for deeper relaxation.

### Reducing sleep disruption

There are a variety of reasons we can have trouble sleeping - artificial light, working late, sleeping away from home. Perhaps your partner works late at night and you can't sleep due to the light from their laptop, or the long summer nights mean you can't fall asleep until it's dark outside. The Kenko PowerSleep® Mask helps to reduce light as a source of disruption. Whether you're on a plane, in a hotel room, on a train, or the sunrise wakes you up through the curtains in the morning, the Kenko PowerSleep® mask can be your sleep companion.

### How to use

Wear mask directly over eyes. Use elastic straps to secure on head.

### Care instructions

Hand wash in cold water with a mild detergent. Air dry at room temperature indoors. Avoid ironing or twisting.

<b>Technology</b>	DynaFlux® Magnetic Technology, Negative Ion Technology, Far-Infrared Technology
<b>Dimensions</b>	H 10cm x L 20.5cm. Fully adjustable – one size fits all.
<b>Magnet strength</b>	800 – 1000 Gauss per magnet
<b>Materials</b>	Microfibre, ceramic-reflective and tourmaline fibres, ferrite, elastic
<b>Outer fabric</b>	100% Polyester (coated with Polyurethane)
<b>Inner Fabric and filling:</b>	100% Polyester (with Tourmaline and ceramic fibers mixed in). Nickel free coating, 20mm (width) elastic band.

3015 Kenko PowerSleep® Mask



# Breathe



Latest surveys show that the rates of allergy are increasing throughout the world, affecting up to 30-35% of the population<sup>1</sup>

## The Why

### The need to take a fresh look

Polluted air, both outdoors and indoors, is an environmental concern in the world today and is a contributing factor to many allergies. Air pollution isn't just experienced in towns and cities; we spend around 90% of our time<sup>3</sup> inside and daily exposure to indoor air pollution can be 2-5 times higher than what we are exposed to outdoors<sup>9</sup>. This is because the air inside our homes is the same air as outside, but we add to the pollution with cleaning products, chemicals from our carpets and soft furnishings, paints, glues from furniture (i.e. particleboards), and with the other by-products of our modern lives.

Dusts, moulds, pollens and other particles in our air can directly impact us through hay fever or other allergies. Improving the quality of our air can reduce the air pollution we experience, as well as helping to reduce airborne transmissions in offices, schools, and other such environments.

### Air as nature intended

Air in natural settings - such as forests, near waterfalls, and the seashore - has a soothing, relaxing feel to it. In forests, the Japanese call this 'Shinrin-yoku' or 'forest air breathing'. This is a sensation created, in part, by the negative ions found in abundance in natural landscapes unspoiled by pollution. Negative ions are particles in the air that carry a net negative electrical charge, and research<sup>4</sup> suggests that negative ions contribute to the sense of wellbeing that we get from breathing fresh, clean air.

The KenkoAir® Purifier is designed to combat allergy-causing particles and enhance the negative ion content of the air we breathe, helping us to enjoy a more natural, pollutant-free environment.



# The Science

## Manmade causes of allergies

Many household products emit chemicals into the air:

- Modern manufactured furniture
- Carpets
- Fabrics
- Electrical equipment
- Personal care products

Even something as simple as burning fragrant candles and incense can have an impact on our allergies.

## Natural causes of allergies

**Pollen** – Tree and grass pollens are the most common cause of hay fever and the levels of pollution vary as the weather changes.

**House dust mites** – Microscopic bugs that flourish in mattresses, bedding, soft furnishings, carpets, and dust. Contact with their droppings and remains, whether through touch or airborne inhalation, can irritate allergies and sensitivities.

**Mould** – A fungus that thrives in damp, humid areas such as basements, cellars and bathrooms. When mould spores get into the air they can cause allergic symptoms. For example, some people think they are allergic to real Christmas trees, but it can often actually be the mould that accumulates on the trees that can cause their allergies.

**Pets** – Pets are another common source of allergic sensitivities, although not usually to the animal fur itself, but, more often, allergic reactions are actually caused by a protein found in the dander (dead skin flakes), saliva, and urine.

**Perfumes** – Products such as perfume, cologne, hairspray, air freshener, and potpourri all release fragrance molecules (particulates) into the air. When inhaled by people with allergies or asthma, these molecules can lead to skin reactions and affect breathing. However, the reaction is not always immediate or sufficient in itself – instead these chemicals may rather increase overall sensitivity, which can then appear to be triggered by something else.

During an allergic reaction the chemical histamine is released into our bodies and the symptoms of this can include rashes, watery eyes, and runny noses, not to mention the emotional strain of experiencing these symptoms. Some people are more at risk than others from allergies, including young children, pregnant women, and the elderly, because their immune systems can be more vulnerable.

“The National Asthma Campaign has estimated that asthma costs the UK over £1 billion per year”<sup>10</sup>

## Beneficial negative ions

In 1993, British researchers<sup>5</sup> conducted an experiment exposing male subjects to negative ions and then measuring their physiological responses including body temperature, heart rate, and respiration (both at rest and whilst exercising). The negative ions were found to have improved all of the physiological states, particularly whilst the participants were resting. The most important result of the study was that the negative ions were found to be biologically active and positively affected the body’s circadian rhythms.

In another trial in 2010<sup>6</sup> scientists observed the effect of negative ions on physiological and psychological stress during a two-hour computer operation. When monitoring heartbeat during the experiment they found that, where the participants were exposed to negative ions, there was an improved change in heart rate from before and after exposure. There was also a significant reduction in the computer-orientated stress and psychological stresses. On the other two test groups – a control group and a placebo group – they didn’t record any significant change.

French researchers conducted a test in 1969<sup>4</sup> on a group of people that had previously suffered from sleeplessness and nightmares as a result of serotonin overproduction (the natural chemical that tells your body it’s time for sleep). By using a negative ion air cleaner to filter the air in the room most of the participants were able to sleep better.

## Key facts

- The average adult breathes in and out approximately 12-16 times per minute<sup>7</sup>
- For asthmatics it’s closer to 20 breaths per minute<sup>7</sup>
- We spend 90% of our time indoors<sup>3</sup>
- The KenkoAir® Purifier contains a technologically advanced ULPA filter – it filters out 99.9995% of particles as small as 0.12 microns (substantially smaller than a single bacterium which is typically 0.2 –2 microns in diameter)
- Airborne allergies can affect people all year round: particularly prevalent in spring and summer, when there is an influx of pollen into the air, but also in autumn with an increase in dampness and moulds, and in the winter when we spend the most time indoors<sup>3</sup> in housing which is well-sealed for energy efficiency, reducing ventilation

# The Technology

## ULPA filtration

The KenkoAir® Purifier has three filtration methods: a physical barrier or trap, an activated carbon adsorption filter, and a ULPA filter stage to remove ultra-fine particles.

The physical barrier acts as a pre-filter capturing dust, pet hair, and similarly sized particles; it also serves as a primary filter to trap larger particles, preventing them from reaching the ultra-fine end-stage filters.

The activated carbon adsorption filter removes molecules of gases and solutions by attracting them to its surface. Charcoal carbon is particularly effective at this due to its irregular shape, which gives it a large surface area, and the carbon in our filters has been treated with oxygen to open up tiny pores between its atoms - this is what attracts the gas and solution molecules to it.

The last stage is a technologically advanced ULPA (ultra-low penetration air) filter, meaning that 99.9995% of particles as small as 0.12 microns will be removed from the air. This is compared to the previous leading air filtration technology, the HEPA standard filter, which offered the filtration of only 99.97% of particles as small as 0.3 microns.

ULPA filters are generally used in micro-assembly clean rooms and nuclear laboratories in order to keep the air as clean as possible.

You may have heard of the growing concerns about fine particulate pollution and particulate pollution, usually identified using two classifications – PM10 particles are 10 microns in size or larger and PM2.5 particles are 2.5 microns in size or larger. Although both can affect us, the smaller PM2.5 particles are thought to be the more concerning of the two classifications, as they can penetrate deeper into the respiratory system, which could increase the risk of lung cancer<sup>8</sup>. The ULPA filtration standard is filtering 99.9995% of particles larger than 0.12u – therefore including both PM2.5 and PM10 particles.

“Filtration of indoor air has been shown to be effective in relieving or preventing a variety of respiratory discomforts.”

All websites accessed on 21st July 2014

1 <http://www.allergyuk.org/downloads/factsheets/all-about-allergy/why-is-allergy-increasing.pdf>  
2 [http://ec.europa.eu/health/scientific\\_committees/opinions\\_layman/en/indoor-air-pollution/index.htm](http://ec.europa.eu/health/scientific_committees/opinions_layman/en/indoor-air-pollution/index.htm)  
3 [http://europa.eu/rapid/press-release\\_IP-03-1278\\_en.htm](http://europa.eu/rapid/press-release_IP-03-1278_en.htm)  
4 “The Ion Effect” (Soyka, 1991)  
5 Reilly T, Stevenson IC. An investigation of the effects of negative air ions on responses to submaximal exercise at different times of day. J Hum Ergol (Tokyo) 1993 Jun;22(1):1-9

## Clean Ion Technology

Ions are either positively or negatively charged particles that are generated through the loss or gain of electrons. Essentially odourless, tasteless, and invisible, they may be observable through phenomena such as static electricity.

Ions are created by either natural or man-made atmospheric conditions. For example, electrical equipment such as computers, mobile phones, and printers typically generate positive ions that can cause a feeling of fatigue, disquiet, or even illness. Air that contains large amounts of negatively charged ions is generally experienced as the calming, relaxing feeling you find in natural settings. The below table shows the quantities of negative ions present in natural settings compared to those in our offices and cars:

Average Negative Ions present in air, 1 cm <sup>3</sup>	
Clear Mountain Air	2,000
Normal Land Air	1,500
Before a Storm	750
Typical modern office	150
Closed moving vehicle	50

The KenkoAir® Purifier releases 2,000,000 negative ions per second and one KenkoAir® Purifier covers an area of up to 29m<sup>2</sup>.

## Environmentally friendly

The KenkoAir® Purifier is not only beneficial to your indoor environment – it’s also environmentally responsible. Many home air-filtration systems produce the toxic gas ozone – an altered form of oxygen, which is a powerful and highly reactive oxidising agent – as a by-product of negative ion generation. Nikken is aware of the dangers of this gas, and the KenkoAir® Purifier has been especially designed so that it doesn’t produce any ozone.

It has also been Energy Star qualified by the United States Environmental Protection Agency, which is only given to air filters that are at least 40% more energy efficient than non Energy Star qualified air purifiers, reducing your electricity bill and helping our planet. The KenkoAir® Purifier is exceptionally quiet and has been measured at only 33.5 decibels at the lowest level, so even the lightest of sleepers can leave it on overnight.



## KenkoAir® Purifier

Nikken's powerful 'Clean Ion' Negative Ion Technology has been proven to reduce airborne triggers for asthma and allergies.

- Medical grade ULPA filter removes 99.9995% of airborne particles as small as 0.12u
- Endorsed by ECARF and Allergy UK
- Negative-ion technology
- Ozone-free operation
- Modern, lightweight for easy portability
- Creates a relaxing, negative-ion rich environment
- Highly automated - Pollution Level Indicator which adjusts fan speed and cleaning power automatically as needed
- Filter replacement indicator



### Ultra-clean, three-level filtration

The KenkoAir® Purifier contains a technologically advanced, three-level filtration system: a pre-filter that acts as a physical barrier or trap to remove large particles such as pet hair and dust, an activated carbon adsorption filter which removes airborne gas and solution molecules, and a final stage advanced medical-grade ULPA (ultra-low penetration air) layer which helps to remove ultra-fine particles. The superior ULPA filter removes 99.9995% of particles as small as 0.12 microns, whereas HEPA filters - commonly used in medical environments such as hospital operating rooms - only remove particles as small as 0.3 microns, giving an indication of just how clean the air can be with the KenkoAir® Purifier.

### Better for you, better for our environment

The KenkoAir® Purifier has built-in Negative Ion Technology and releases 2 million negative ions per second. Featuring ozone-free - a toxic form of oxygen generated by most air filtration systems - operation, the KenkoAir® Purifier is energy efficient and has been Energy Star qualified by the United States Environmental Protection Agency, which is only given to air purifiers that are 40% more energy-efficient than standard models, saving consumers about 230 kWh/year, reducing your electric bill and helping our planet.

### Endorsements

The KenkoAir® Purifier is endorsed by respected scientific bodies, such as the European Centre for Allergy Research Foundation and Allergy UK; these organisations only support products which are proven to be effective in removing allergens from the environment.

### How the KenkoAir® Purifier operates

The KenkoAir® Purifier is a recirculating air cleaner designed to remove airborne particles and allergens such as dust, smoke, pollen, mould spores, animal dander, dust mites, and harmful fibres that may lead to allergic reactions.

### How to use

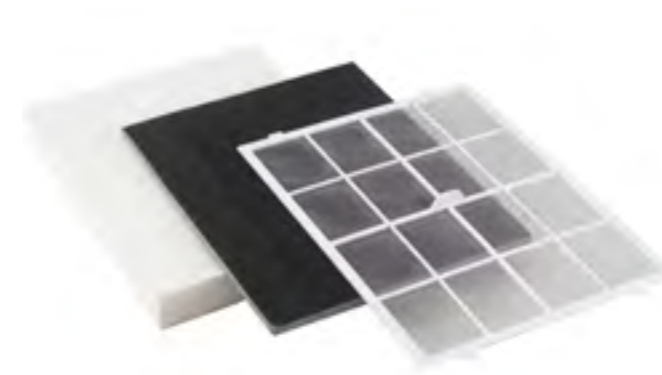
When the KenkoAir® Purifier is first turned on, the air quality indicator will change colour several times to calibrate itself and then stabilise after approximately 30 seconds. The blue end of the scale denotes a low level of airborne particulates and red signifies a higher concentration of particulates. A sensor continually monitors the indoor air and any alteration is reflected in the colour of this indicator, which will also adjust the fan speed and cleaning response when set to automatic operation.

### Filter replacement

Replace the filter every 6 months or when the filter-life indicator is flashing. The deodorising filter and ULPA filter require regular replacement. Inspect at least once every three months or more often if used in an area with higher than average levels of air pollution.

### IMPORTANT:

The pre-filter is reusable. Do not discard — clean and reinstall.



1640 KenkoAir® Purifier

1643 KenkoAir® Filter pack

<b>Weight</b>	6.3kg
<b>Made from</b>	Recyclable plastic (ABS)
<b>Coverage</b>	313 sq ft/ 29m <sup>2</sup>
<b>Technology</b>	Negative Ion Technology
<b>Filters:</b>	Anti-bacteria pre-filter; Deodorisation filter; Medical Grade ULPA filter
<b>Dimensions</b>	W 37.5cm, H 57.5cm, D 25.5cm
<b>Energy consumption / decibels</b>	Max. turbo 45w / 52dB.



# Light

“”

All life originates and develops under the influence of... light<sup>7</sup>

## The Why

### The power of light

When we consider our relationship with our environment, the importance of light is often overlooked. Yet, of all the five senses – vision, smell, hearing, touch and taste – by far the greatest proportion of information received by the brain comes through our eyes<sup>1</sup>, and light is the medium for that information.

We usually don't consider light as part of our health, but it is as much a part of our environment as air or water. Our bodies react to different qualities of light and our internal chemical rhythms are partly co-ordinated by light too - light in the morning helps us to wake up, whilst fading light tells us to go to sleep.

Research<sup>2</sup> by John Ott and others has highlighted the role that light can play in all aspects of health. Indeed, John Ott coined a term 'mal-illumination' as a parallel concept to malnutrition: that light is a vital nutritional component of health, just as food is a vital component of health, and just as certain foods are better for us, so certain light too can be better for us.

Modern life has meant that we spend more of our time indoors illuminated by artificial light. However, some people are more sensitive to artificial light than others, developing headaches, loss of concentration and other related problems. Since these people are only a minority of the population, traditionally we have tended to classify such people as 'unfortunately sensitive'.

However, perhaps more logically, we can also see such experiences as a scale, acute for some above a certain threshold, or residual for others, adding to the overall accumulation of stress on our bodies.

In this context, the natural-spectrum light of the KenkoLight<sup>®</sup> is designed to resemble natural daylight from the sun, reducing the effects of artificial light when compared with the environment in which we evolved.



# The Science

Research shows that the physiological and psychological effects of artificial lighting are significant and quantifiable. The amount of light is important, but the composition and quality of light is perhaps the most important factor, affecting health, temperament, and the ability to see clearly. Most people are aware of the relationship between light and vision, however, few are aware that non-visual light-sensing cells in the eyes develop first, long before the specific light cells and the rods and cones that process light into vision.

Physiological studies have shown that under full-spectrum lamps, versus cool white lamps, humans have increased oxygen intake, reduced heart rate, increased ability to absorb vitamin D and calcium, and improved muscle utilisation.<sup>8</sup>

**“Every two hours approximately 99% of the body’s new blood is exposed to light as it circulates through the blood vessels at the back of our eyes”<sup>2</sup>**

Dr. John Ott demonstrated that only the full-spectrum of sunlight optimises growth in plants, and he also found that chickens living under artificial lights live half as long, are more aggressive, and produce eggs with significantly more cholesterol. When testing children in classrooms illuminated with full-spectrum light he found that they demonstrated an improvement in academic achievement within one month and significantly less hyperactivity.<sup>2</sup>

Studies in conjunction with the Florida Department of Education found that full-spectrum light had positive effects on children who had attention deficit disorders and poor academic performance, and it also reduced childhood tooth decay.

Light entering our eyes travels to the hypothalamus, which is the ‘master clock’ for our bodies, controlling the nervous system, the endocrine system, the immune system, and the emotional centres. Because the hypothalamus responds to light, it essentially uses light activated information (or the things you see) to regulate our vital bodily functions.

The hypothalamus is also responsible for ensuring that the body’s circadian rhythms are working correctly. These rhythms are based on the amount of light entering our eyes and they control when we wake, hormone release, body temperature, when we should eat, and when we should sleep. Not getting enough quality light can mean our bodies become out of sync, and that’s why we may end up not being able to get to sleep or why we may eat irregularly.<sup>3</sup>

The average person spends 90% of their time indoors – either at work or at home – away from natural sunlight, and this lack of sunlight can cause an increase of melatonin in our bodies. Melatonin is the hormone that promotes sleep and keeps our internal body clocks on track by acting as the wake-up alarm for a variety of biological processes; an increase of this hormone causes a ‘hibernation’ response<sup>4</sup>.

Light has also been shown to have a large impact on our metabolisms and hormone levels. In a study conducted on a group of cataract patients<sup>5</sup>, who all had vision of less than 1/10, it was found that they showed both metabolic and hormonal disturbances, having a slower metabolism and decreased levels of ACTH, therefore, a reduction of the hormone Cortisol\*. After the cataracts were removed from the patients and, consequently, the level of light passing through their eyes was significantly improved their recorded metabolic rate had improved and the hormone levels in the patients had returned to normal.

Another study<sup>6</sup>, exploring the effects of normal artificial light versus full-spectrum artificial light on children and adults, found that a test group who were exposed to normal artificial light had increased amounts of the hormone Cortisol, reaching the same levels as would be expected in subjects under stress. This increased hormone level helped to explain the agitated mental and physical behaviour observed in the children exposed to artificial light all day, compared to the group exposed to full-spectrum light.

The effect on adults is similar in terms of productivity, with one company even claiming to have saved \$235,000 annually from reduced computer errors by upgrading the lighting in their offices to full-spectrum light.

\*Cortisol is important to our bodies as it controls blood sugar levels, acts as an anti-inflammatory, assists with memory formation, balances salt and water levels, and helps regulate blood pressure.



# The Technology

## More natural light

In a normal incandescent or fluorescent light and even LEDs which are not designed to be flicker-free the bulbs operate at frequencies that flicker constantly and, though you may not notice it, this flickering has been implicated as a cause of fatigue and eye strain.

To help combat the symptoms of artificial light, the KenkoLight® has been developed using special flicker-free circuitry. This circuitry eliminates the flicker and glare found in normal lights, providing the benefits of more natural illumination at any time of day or season of the year. This helps to support your physical health and emotional wellbeing by improving mood, improving productivity at work, reducing fatigue, and reducing stress, as well as improving other symptoms related to artificial light.

## Natural spectrum light

Most organisms have evolved to thrive under natural sunlight. Nikken understands this and the KenkoLight® has been developed to provide lighting in the entire visible spectrum of wavelengths, including those which correspond to natural visible solar energy. Balancing the light spectrum towards natural daylight leads to a sharper light with more blue frequencies than, for example, the more yellow light of traditional incandescent bulbs. The KenkoLight® also doesn’t produce any potentially harmful UV rays, unlike natural sunlight.

**“Light affects the way our brains work...lamps that light up gradually in the morning...[are] so much better than waking up sharply to the radio”<sup>4</sup>**

## Added benefits

The KenkoLight® can be personalised to meet your needs; with the arm extended it makes the perfect desk lamp, but if you close the light against the diffuser it transforms into a mood or night light.

Waking up and going to sleep are made easier by the gradual increase or decrease of the brightness of illumination from the lamp, replicating sunrise or sunset. This gradual awakening or going to sleep can promote a more natural sleep cycle, meaning you feel more rested and energised. If the gradual light in the morning isn’t enough, there’s an in-built alarm to help you wake up.

## Environmentally friendly

The LED bulbs in the KenkoLight® save more than 70% of the electrical power used to operate an equivalent 40W incandescent bulb. They also last 10 times longer than a fluorescent bulb and 60 times longer than an incandescent bulb.

The LEDs do not emit any EMFs (Electromagnetic Fields) and consequently don’t produce any electrosmog, which is an invisible electromagnetic radiation resulting from the use of both wireless technology and mains electricity.

## Key facts

- Poor light affects our stress levels and our productivity<sup>7</sup>
- Children generally experience better academic achievements with more balanced light<sup>2</sup>
- 99% of your body’s new blood is exposed to light as it circulates around your eyes<sup>2</sup>
- The KenkoLight® produces light with a more balanced spectrum to more closely resemble natural daylight
- The KenkoLight® can support the natural waking and sleeping cycle

All websites accessed on 21st July 2014

1 <http://www.nlm.nih.gov/medlineplus/magazine/issues/summer08/articles/summer08pg12.html>  
2 *Health and Light - The Effects of Natural and Artificial Light on Man and Other Living Things.* John N. Ott First printing 1973 / *Influence of Fluorescent Lights on Hyperactivity and Learning Disabilities* John N. Ott, ScD J Learn Disabil August/September 1976 vol. 9 no. 7 417-422  
3 <http://sleepfoundation.org/sleep-topics/sleep-drive-and-your-body-clock>  
4 <http://www.netdoctor.co.uk/healthy-living/light-up-your-life.htm>

5 *Effect of light on the eye on metabolism and hormones.* [German] Original Title *Der Einfluss des Lichtes über das Auge auf den Stoffwechsel und die Hormone.* (Klinische Monatsblätter für Augenheilkunde. 195(5):284-90, 1989 Nov.)  
6 <http://www.ncbi.nlm.nih.gov/pubmed/6255392>  
7 *The Effect of Sunlight and Full-Spectrum Light on Health, Wellness & Performance* (Jacob Liberman, OD, PhD, D Sc.)  
8 (Hughes, 1986) (Neer, 1984) Hughes, P.Ph.D. “The Use of Simulated Natural Light in the Design of the Earth Sheltered Environment”.

## KenkoLight®

The benefits of more natural illumination at any time of day or season of the year

- Simulates the natural light spectrum of the sun to support health but without the harmful UV rays
- Can help towards reducing eyestrain and headaches, and increasing productivity and focus, therefore improving mood
- Gradual light increase/decrease function to replicate sunrise/sunset for a more natural sleep cycle, an inbuilt audible alarm to aid waking, and an inbuilt clock
- Adjustable brightness control
- Sleek, compact, contemporary design: lightweight, yet extremely durable
- Ideal for use both at home and in the office.

### Bringing outside light in

The KenkoLight® creates an enriched light spectrum, compared to ordinary artificial light, which is a closer simulation of the natural light of the sun. Most organisms thrive under natural sunlight, but much of modern living is spent indoors during daylight hours. During the winter months in particular, we may receive only minimal exposure to natural light. The KenkoLight® can help reduce the stress caused by artificial light, increasing productivity in the workplace, and reducing the negative consequences which artificial light can bring.

### Practical to use

The KenkoLight® is primarily a task and reading light, featuring flicker-free technology to help reduce eyestrain. By closing the arm the light can be transformed into a background light, a mood or night light.

In the morning, the KenkoLight® can be set so that it gradually increases the brightness of the illumination to replicate sunrise (or fade for dusk), thereby promoting a more natural waking and sleep cycle, helping to ease you awake so that you feel more energised and, if needed, there is also an in-built alarm and clock.

### How the KenkoLight® operates

Improves the lighting in the office or at home. Helps trigger the production of chemicals in our bodies that fight fatigue. Helps improve mood and increase overall productivity in the workplace (studies have shown that well-lit areas tend to increase worker productivity and employee morale).

### How to use

Indoor use only.

Can be used in a variety of roles:

- Living room – as a general light or reading lamp
- Kitchen worktops – increase visibility, aid tired eyes
- Children's work tables – for homework or play
- Bedroom – as mood or night light, or even to simulate sunrise
- Office – particularly when reading documents, or working on a computer
- Workplace – each employee's personal light requirements may differ based on age, vision, or preference

<b>Weight</b>	1kg
<b>Technology</b>	Full-spectrum light emitting diodes (LED) Light: UVA and UVB free LED bulbs, Sunrise Simulator with alarm clock option, USB 2.0 Port for charging select MP3 players/select cell phone models
<b>Dimensions</b>	Base W 7.6cm, base L 17.5cm, overall H 39.5cm, lamp head L 30cm
<b>Lamp:</b>	
<b>Brightness</b>	340+ lumens (equivalent to 40 W incandescent)
<b>Intensity</b>	600 lux at 40 cm
<b>Frequency</b>	12,000 MHz maximum
<b>Effective LED life</b>	35,000 hours (60x longer life than incandescent light under typical conditions)
<b>CRI [Colour Rendering Index] Value</b>	90+
<b>Power:</b>	
<b>Input</b>	100-240 V
<b>Output (adapter)</b>	12 V, 1.5 A
<b>Power consumption</b>	12 W, maximum
<b>Output (USB)</b>	USB 2.0 – 5 V, 500 mA.

1292 KenkoLight®





# Water



## The Why

Water is a basic nutrient of the human body and is critical to human life. Yet it is frequently overlooked as one of the six basic nutrients, along with carbohydrates, fats, vitamins, proteins and minerals<sup>1</sup>.

Most of the chemical reactions that happen in our cells need water in order to take place. We need water so that our blood can carry nutrients and waste products between our major organs, helping regulate body temperature, lubricating our joints, and acting as a shock absorber<sup>2</sup>. Good hydration can also assist in the management of many illnesses and conditions: diabetes, constipation, urinary tract infections, cognitive impairment, and skin conditions<sup>1</sup>. Other research has shown that poor hydration can contribute to glaucoma, stroke and asthma<sup>2</sup>.

Studies also show that improved hydration could reduce the risk of developing cancer of the large bowel, the breast, the prostate and the urinary tract; reduce the risk of kidney stone formation by 39%; and reduce the risk of coronary heart disease by 46% in men and 59% in women<sup>1</sup>.

However, for most people, it is the link between poor hydration and physical stress which may be most relevant - if you're dehydrated, your body isn't running well.

"Studies have shown that being just half a litre dehydrated can increase your cortisol levels," says Amanda Carlson, RD, director of performance nutrition at Athletes' Performance, a trainer of world-class athletes. "Cortisol is one of those stress hormones. Staying in a good hydrated status can keep your stress levels down. When you don't give your body the fluids it needs, you're putting stress on it, and it's going to respond to that."<sup>4</sup>

Recent studies have shown that providing children with water at school significantly increased levels of cognition, including factors such as visual memory and performance<sup>2</sup>, and those students who brought drinks into an exam outperformed those who did not.<sup>6</sup>

**“Even mild dehydration will slow down your metabolism as much as 3%.”<sup>7</sup>**

Research indicates that between 65-75% of people are typically dehydrated<sup>8</sup>; this is in part because water, although essential, is often overlooked and also because the thirst mechanism can be suppressed or misinterpreted<sup>1</sup>. However, society continues to be slow to understand or act on this knowledge, and that can mean that vulnerable people miss out on the guidance they need in order to maintain a healthy level of hydration.<sup>9</sup>



# The Science

A survey<sup>2</sup> conducted by the Natural Hydration Council showed that approximately 65% of the adult population in the UK drink less than the recommended daily amount (2 litres) of water.

In addition<sup>7</sup>:

- Drinking five glasses of water daily decreases the risk of colon cancer by 45%, plus it can reduce the risk of breast cancer by 79%, and you are 50% less likely to develop bladder cancer
- The kidneys can't function properly without enough water. When they don't work to capacity, some of their load is passed onto the liver
- Water helps to maintain proper muscle tone by giving muscles their natural ability to contract and by preventing dehydration. It also helps to prevent the sagging skin that usually follows weight loss. Shrinking cells are buoyed by water, which plumps the skin and leaves it clear, healthy and resilient
- Water can help relieve constipation. When the body gets too little water, it siphons what it needs from internal sources. The colon is one primary source and this can lead to constipation. But, when a person drinks enough water, normal bowel function usually returns
- Lack of water is the number 1 trigger of daytime fatigue

## Tap Water

Tap water is one of the wonders of modern society, delivering safe drinking water to almost every home. In Europe, every country has national standards for safe tap water, and as a result it is processed and treated with chemicals to destroy bacteria and ensure safety. The chemicals are of course added at safe levels but chlorine, for example, is also a powerful oxidising agent and toxic above a certain threshold. In tap water the concentrations are low but will still be absorbed and processed by the body, as will the chemical by-products of the disinfection process. So, although the water is safe within certified definitions, it also has the potential to contribute to low-level chemical stress on the body. These chemicals also have an impact on taste and odour.

Since 2005, a group called the Environmental Working Group has carried out some studies analysing the blood from the umbilical cords of newborn babies. In some umbilical cords they have found over 200 industrial chemicals present, all with significant potential adverse effects on the body. Clearly these are not just water-born chemicals but are also acquired from the mother's blood through food, other drinks, air and even fragrances and other chemicals absorbed through the skin<sup>10</sup>.

Although the water quality is controlled at the point of processing, there is also a long pipe network of unknown and uncontrolled quality to deliver the water to the customer's tap. Finally, by far the greatest proportion of tap water is actually thrown away – flushed, used for washing and cleaning, and used on gardens. The cleaning process will, therefore, always need to be a delicate balance of cost versus value.

## Bottled Water

Compared to tap water, bottled water solves some problems and also creates some new problems. The bottling process allows for the water to be sterile without the need to add additional chemicals, so there is no need to add additional chlorine. By not supplying the water through plumbing other contaminants can also be avoided. On the other hand there is a significant price to be paid, both in terms of price per bottle and the affects on the environment. First, this is through the energy cost of shipping the water from source to consumer – often shipping thousands of miles internationally. Secondly, it's through the energy and hydrocarbon input into the manufacture of the bottles and the disposal of the bottles, particularly if sent to landfills or simply discarded.

Regulations on bottled water differ more widely by country, and many bottled waters have no quality thresholds in place. In 2008, the Environmental Working Group in the US commissioned tests that found bottled water not necessarily any safer than tap water. Ten brands sampled by EWG contained 38 pollutants ranging from fertiliser residue to industrial solvents. Pollutants in two brands exceeded state and industry health standards. The result of this is that a number of prominent restaurants in the US now serve filtered tap water instead of bottled water. As another example, the city of San Francisco no longer allows employees to purchase bottled water for city business<sup>11</sup>.

From an environmental perspective<sup>12</sup>:

- More than 100 million plastic bottles are used each day worldwide
- Approximately 1500 bottles end up in landfills and the ocean... every second
- 2 million tonnes of plastic bottles are landfilled each year
- It takes 700 years before plastic bottles start to decompose and can take up to 1000 years to fully decompose
- It takes 3-5 litres of water to make 1 plastic bottle – up to 7 litres for some imported bottles
- It takes 151 billion litres of oil to produce the world's plastic bottles each year
- Total energy input into the worldwide bottled water industry, including shipping bottled water to customers around the world is approximately 50 billion litres of oil
- 2,500,000 tons of a carbon dioxide was produced in the manufacturing of the plastic bottles in 2006
- Up to 24% of bottled water comes directly from the tap
- United Nations Environment Programme estimates that in every single square mile of the sea, there's 46,000 pieces of plastic floating – worldwide

## Water filters

The third alternative to tap water and bottled water is the process of filtering tap water: i.e. if chemicals and pollutants are added and leach into our tap water then it is logical to filter them out again at the point of use.

There are many different types of water cleaning treatments. The most efficient would be distillation, which is not usually convenient in a domestic context. Reverse osmosis is also highly effective but at a significant environmental cost – around four times as much water is used and thrown away through the filtration process than is actually available to use. Also, both of these processes are so effective that they take everything out of the water, not just adverse chemicals, but also minerals and beneficial nutrients. At the other end of the spectrum would be light-duty 'jug'-style filters for the table or kitchen with small filtration cartridges designed to help with taste but little more.

## PiMag® water

However, suppose we could recreate fresh spring water in our own home or office? That is the design concept of the Nikken PiMag® water products – to convert tap water into fresh spring-like water. Using a multistage process which cleans, alkalises, mineralises, ionises, energises and oxygenates the water, the PiMag water products produce light, velvety, fresh-tasting water which is pleasant and easy to drink and good for you too! These different processes are described further in the Technology section below.

## PiMag® water for showers

### “You get more toxic exposure from taking a shower than from drinking the same water.”

So reported Science News about a recent study by a major U.S. university. Possibly one of the most significant risks to your health is not about what you put in your body by way of food and water but what you put on your body by bathing in chlorinated water. The skin is the body's largest organ and easily absorbs contaminants, which pass through it to the blood stream. Therefore, whatever you put on your skin ends up in your body.

### “Showering [and hot baths] are suspected as the primary cause of elevated levels of chloroform in nearly every home because of the chlorine in the water.”

Dr. Lance Wallace of the Environmental Protection Agency.

Warm shower water opens up the pores in the skin, making your skin like a sponge. Studies have shown that your body can absorb more chlorine in a ten minute shower than in drinking eight glasses of the same water.<sup>13</sup>

“Exposure to trihalomethanes (THMs) through inhalation and dermal contact during showering and bathing may pose risks to human health. During showering and bathing, warm water (35 °C–45 °C) is generally used. Warming of chlorinated supply water may increase THMs formation through enhanced reactions between organics and residual chlorine. Exposure assessment using THM concentrations in cold water may under-predict the possible risks to human health. The risks through inhalation exposure were found to be comparable [2.1 × 10<sup>-6</sup>–3.7 × 10<sup>-6</sup>] to those of the dermal contact [2.2 × 10<sup>-6</sup>–3.9 × 10<sup>-6</sup>] for the cities. This study predicted 36 cancer incidents from exposure to THMs during showering for these three cities, while Toronto contributed the highest number of possible cancer incidents (22), followed by Ottawa (10) and Hamilton (4). The sensitivity analyses showed that health risks could be controlled by varying shower stall volume and/or shower duration following the power law relationship.”<sup>13</sup>

“Assessments of drinking water safety rely on the assumption that ingestion represents the principal route of exposure. . . We conclude that skin absorption of contaminants in drinking water has been underestimated and that ingestion may not constitute the sole, or even primary, route of exposure.”<sup>14</sup>

**United Nations Environment Programme estimates that there is an average of 46,000 pieces of plastic floating per square mile of sea – worldwide.<sup>12</sup>**



# The Technology

## PiMag® water origins

A unique feature of PiMag® Water Technology is the addition of pi minerals to the process. Japanese scientists originally discovered pi water – clean, naturally alkaline water – in the 1970s. Observation had suggested that the water from an isolated hillside stream had a remarkable effect on the plant life in the area.

The scientists examined the environment and found that it contained an unusual collection of topographical features. The surrounding hills contained magnetite and calcium, and the water also flowed over silicates, which is the material that forms natural crystals.

Nikken's PiMag® water products are designed to convert tap water into fresh spring-like water which will bring these qualities into our homes and offices.

## Key facts

- Between 65-75% of people are typically dehydrated<sup>8</sup>
- One study found that students who brought drinks into an exam outperformed those who did not<sup>4</sup>
- Lack of water is the #1 trigger of daytime fatigue<sup>7</sup>
- Our bodies can absorb more chlorine in a 10 minute shower as it can through us drinking eight glasses of water<sup>13</sup>
- Pi water was discovered in the 1970s in Japan



All websites accessed on 22nd July 2014.

1 [http://www.rcn.org.uk/\\_data/assets/pdf\\_file/0003/70374/Hydration\\_Toolkit\\_-\\_Entire\\_and\\_In\\_Order.pdf](http://www.rcn.org.uk/_data/assets/pdf_file/0003/70374/Hydration_Toolkit_-_Entire_and_In_Order.pdf)

2 <http://www.naturalhydrationcouncil.org.uk/wp-content/uploads/2014/05/H2know-Top-Hydration-facts.pdf>

3 <http://www.webmd.com/diet/features/water-stress-reduction>

4 [http://abstracts.bps.org.uk/index.cfm?ResultsType=Abstracts&ResultSet\\_ID=7781&FormDisplayMode=view&frmShowSelected=true&localAction=details](http://abstracts.bps.org.uk/index.cfm?ResultsType=Abstracts&ResultSet_ID=7781&FormDisplayMode=view&frmShowSelected=true&localAction=details)

5 [http://www.phd1.idaho.gov/home/publicinfo/documents/fach\\_water.pdf](http://www.phd1.idaho.gov/home/publicinfo/documents/fach_water.pdf)

6 <http://www.blueplanet.nsw.edu.au/water-facts.aspx>

7 <http://www.telegraph.co.uk/health/healthnews/9591814/Patients-starve-and-die-of-thirst-on-hospital-wards.html>

8 <http://www.ewg.org/research/body-burden-pollution-newborns>

9 <http://www.ewg.org/research/ewgs-water-week/toxic-tuesday-purity-not-guaranteed>

10 [www.safebottles.co.nz/worldwatchinstitutecontainerrecyclinginstitute](http://www.safebottles.co.nz/worldwatchinstitutecontainerrecyclinginstitute), [www.pacinst.org](http://www.pacinst.org)

11 *Risk from exposure to trihalomethanes during shower: Probabilistic assessment and control.* Shakhawat Chowdhury, Pascale Champagne. *Science of The Total Environment* Volume 407, Issue 5, 15 February 2009, Pages 1570–1578 <http://www.sciencedirect.com/science/article/pii/S0048969708011480>

12 <http://www.ncbi.nlm.nih.gov/pubmed/6711723>

## PiMag® Waterfall Gravity Water System

Simple operation, advanced water-contaminant reducing technology

- Natural, gravity-fed filtration – no need for electricity
- Minerals that help to adjust pH to create alkaline water
- Certified filtration to reduce contaminants
- Filter life LED indicator
- Fits perfectly onto your kitchen worktop
- Gold Seal of Approval from the Water Quality Association
- Non-leaching and BPA free materials.

### Multiple-stage processing

Depending on the water supply and pipes, tap water can contain traces of many chemicals, including chlorine, disinfectant by-products, sediments, heavy metals, and pesticides. Nikken PiMag® water products have been developed to transform your normal tap water into clean PiMag® water.

The first stage of the PiMag® Waterfall Gravity System is a pre-filter, removing larger particles from the water. The second stage is where the water passes through activated carbon to capture microscopic particles. Activated carbon is a natural material that is made by processing charcoal in an oxygen-rich environment to create a vast surface area, typically between 500-2500 square metres per gram. The final stages include a mineralisation process as the water flows through a layer of pi minerals; these minerals increase the pH of the water, making it alkaline, and decrease the ORP (Oxidation Reduction Potential). The water then flows over a bed of mineral stones, ending in a powerful magnetic energising and conditioning process.

### Highest design standards

The PiMag® Waterfall Gravity Water System has a modern, compact profile to fit conveniently into modern kitchen environments. All Nikken PiMag® water products are designed to the highest standards, non-leaching, and free of BPA and other oestrogenic chemicals. With its Gold Seal of Approval from the Water Quality Association, the PiMag® Waterfall meets rigorous standards for performance, capacity, and integrity, removing a variety of drinking water contaminants.

### How to use

Fill top tank with water. Filtered PiMag® water collects in the lower supply tank. The filter-life LED indicator turns from green to red when it is time to renew the filter.



### Filter replacement

Filter cartridge: 90 days or 900 litres, whichever comes first (the sensor informs you when usage has reached 900 litres). Mineral stones: 1 year. Component life may vary depending on the water quality.

### Care instructions

Do not attempt to carry or move the PiMag® Waterfall when fully assembled and keep away from direct sunlight. Clean only by rinsing in cold water; do not use any abrasive cleaners, paper towels, or hot or soapy water.

### Endorsements and certifications

The PiMag® Waterfall Gravity Water System has received the coveted Gold Seal of Approval from the Water Quality Association in the United States of America, as well as certifications under NSF International standards 42 and 53.



<b>Technology</b>	Field Gradient Magnetic and PiMag Water Technologies - gravity flow, multiple-filtration.
<b>Weight</b>	3kg
<b>Capacity of tank</b>	Fill tank 5 litres/ supply tank 5.5 litres
<b>Dimensions</b>	W 22.5cm, H 42.3cm, D 32.5cm
<b>Magnet Strength</b>	1200 Gauss
<b>Materials contained in the product</b>	Pi material, mineral stones, recyclable polymer, magnet.

1380 PiMag® Waterfall Water System

1381 PiMag® Waterfall Filter Pack

1382 PiMag® Waterfall Stones



## PiMag® Sport Bottle

Delicious water wherever you are

- Economical, environmental alternative to bottled water
- Advanced filtration for cleaner, better-tasting water
- PiMag® technology adjusts pH to create alkaline water
- Safe, reusable, recyclable, biodegradable bottle
- Replaceable filter - good for approximately 250 refills

### PiMag® water on the go

Whether you are playing sports on the field, watching in the stands, travelling to work, or flying around the world, now you can create delicious PiMag® water wherever you go and from any safe water tap that you pass. Containing Nikken PiMag® Water Technology, the filter in the Sport Bottle adjusts the water's pH value to alkaline 8.5-9.5 (helping to offset the oxidising effects of the modern diet and environment). The bottle is reusable and, since each replaceable filter lasts for an estimated 250 refills, the cost of filling up is also only around half the price per litre of buying bottled water, saving you money too.

### Environmentally friendly

More than 100 million plastic bottles are used each day worldwide so, by using the refillable PiMag® Sport Bottle, you are helping to reduce the plastic waste in our world and helping the planet. It is also made from a unique BPA free resin and, should it be lost, it is fully biodegradable, breaking down into natural biomass that contributes to the soil's nutrients.

### How to use

Remove cap and fill bottle with water to fill line. Replace cap, raise drinking spout, and squeeze bottle. Read instructions before first use.

### Filter replacement

Each filter lasts for up to an estimated 250 refills, or approximately 152 litres or 3 months of average use.

### Care instructions

For cleaning, the bottle shell may be hand washed. Clean the filter assembly ONLY by rinsing with water. Do not place in the freezer, microwave or dishwasher. Do not fill with hot or salt water. Do not leave water in the bottle for more than 24 hours.

### Filtration Test Results – ANSI/NSF standards USA 42 and 53.

- Particulates (clarity, sediment): exceeds standard
- Chlorine reduction: exceeds standard
- Chloramine reduction: exceeds standard
- Taste and odour reduction: exceeds standard
- Lead reduction: exceeds standard
- VOCs: exceeds standard
- MTBE: exceeds standard

### The PiMag® Sport Bottle removed the following percentages of chemicals and sediments from the water tested in the UK Lab:

- Chlorine reduction: 94%
- Iron reduction: 77%
- Copper reduction: 97%
- Lead reduction: 77%
- Nickel reduction: 81%
- Ammonium reduction: 54%
- pH increase from 7 to 9.15 (alkaline water)



1375 PiMag® Sport Bottle

1376 PiMag® Sport Bottle Replacement Filter

## PiMag® Ultra Shower

Clean, chlorine free showers

- Shower in water naturally cleansed of common irritants
- Removes 100% of chlorine
- Can be beneficial to both skin and hair
- Features a replaceable filter cartridge
- Easy to install with a long, 1.8m hose
- Five-way adjustable spray including massage option

### PiMag® water for your skin

Our bodies not only absorb chlorine or other disinfectants through drinking but also through water vapour and through our skin when we shower. When our water is sanitised disinfectants are added and, although quality standards apply, some will make it to our homes, along with disinfection by-products, also affecting both taste and smell. These contaminants are generally considered safe but can still be a source of physical stress on our bodies and can be quite harsh, oxidising, and drying for the skin.

The PiMag® Ultra Shower removes 100% of this chlorine and most other contaminants, helping to avoid common skin irritations, and is likely to result in smoother skin and softer hair.

### Cleansing PiMag® water

The shower head is easy to install and features a five-way adjustable spray – from a pure-mist effect, to a deep-cleaning spray to help ease aching, tired muscles. The PiMag® Ultra Shower also features Nikken's exclusive blend of filtration materials and magnetic technology.

### Filter replacement

Every 90 days, in order to maintain the optimum benefits.

### Care instructions

The handle can be cleaned in warm water with mild detergent once the filter has been removed. The head itself is 'self cleaning'. Just wipe firmly with a cloth on the shower face.



<b>Technology</b>	Field Gradient Magnetic and PiMag® Water Technologies
<b>Weight</b>	840g
<b>Dimensions</b>	L 28cm, handle W 4cm, Shower head diameter 8cm, Hose L 183cm
<b>Magnet strength</b>	1500 Gauss
<b>Materials contained in product</b>	ABS (Acrylonitrile-Butadiene-Styrene), KDF (Kinetic Degradation Fluxion Media), Chlorgon, NBR (Buna Nitrile), SS-304, recyclable plastic
<b>Pressure requirements</b>	25PSI (1.73 bar) – 80PSI (5.5 bar). Maximum flow rate is 9.54 litres per minute. Due to its filter feature, a slight reduction in pressure may be experienced from your normal shower.

1341 PiMag® Ultra Shower head

1342 PiMag® Ultra Shower filter



# Nutrition

## The Why

The word 'nutrition' is commonly defined as the food necessary for health and growth and the importance of good nutrition has been recognised throughout history. Hippocrates, a physician from Ancient Greece who has been a seminal figure and reference throughout the development of modern medicine, wrote: 'Let food be thy medicine and medicine be thy food'. Of course, no one would suggest that nutrition is the only tool necessary for health but it is indeed a powerful and essential component and, compared with the consequences and alternatives, a straightforward place to start.

### Fruit and vegetable portions

Most people also know, in their hearts, what they should be eating for a healthy diet. Many governments offer dietary guidelines and promote them in public-health campaigns. In contrast to the increasingly unhealthy modern diet of manufactured and processed foods, vegetables and fruits are key. Yet, that's where the consensus ends. Britain is told to aim for five-a-day, Denmark for six, France for ten, Canada for between five-ten, and the Japanese government now recommends 13 portions of vegetables and four portions of fruit a day<sup>1</sup>. In 2011, the US FDA carried out nutritional reviews and the previous five-a-day recommendation was increased to nine-a-day.

However, the reality is that, in general, the differences in recommendations are more about social expectations than biological need – most Europeans fail to even meet the basic targets. And the availability of statistics varies across Europe; for example, in the UK, 70% of Britons fail to eat even five portions a day. If we reduce the target to only two portions of vegetables per day, statistics across Europe range from the highest level achieved in France, which still only accounts for 50% of the population, to only 13-14% of the population in Bulgaria or Belgium achieving the target.<sup>2</sup>



## Our modern diets

To put this in context, everyone knows that if you don't maintain a car properly it's likely to break down; our bodies are not so different.

In 2005, Professor Loren Cordain et al wrote in the American Journal of Clinical Nutrition:

**“In the United States and most Western countries, diet-related chronic diseases represent the single largest cause of morbidity and mortality. These diseases are epidemic in contemporary Westernized populations and typically afflict 50–65% of the adult population, yet they are rare or nonexistent in hunter-gatherers and other less Westernized people. Although both scientists and lay people alike may frequently identify a single dietary element as the cause of chronic disease (eg, saturated fat causes heart disease and salt causes high blood pressure), evidence gleaned over the past 3 decades now indicates that virtually all so-called diseases of civilization have multifactorial dietary elements that underlie their etiology, along with other environmental agents and genetic susceptibility. Coronary heart disease, for instance, does not arise simply from excessive saturated fat in the diet but rather from a complex interaction of multiple nutritional factors directly linked to the excessive consumption of novel Neolithic and Industrial era foods (dairy products, cereals, refined cereals, refined sugars, refined vegetable oils, fatty meats, salt, and combinations of these foods). These foods, in turn, adversely influence proximate nutritional factors, which universally underlie or exacerbate virtually all chronic diseases of civilization: 1) glycemic load, 2) fatty acid composition, 3) macronutrient composition, 4) micronutrient density, 5) acid-base balance, 6) sodium-potassium ratio, and 7) fibre content. However, the ultimate factor underlying diseases of civilization is the collision of our ancient genome with the new conditions of life in affluent nations, including the nutritional qualities of recently introduced foods.”<sup>3</sup>**

With this in mind, not only is our modern diet increasingly determined by a drive towards convenience and commerce, but we have become conditioned to ignore the evidence from our own bodies of our declining individual and collective health. We need to be 're-taught' the importance of the food we eat and what's healthy for us by academics, because society around us has adopted different habits and priorities. For example, in our current society we tell children to eat fruits and vegetables but then undermine the messages with marketing, and we often reward good behaviour with the least healthy 'treats'.<sup>4</sup>

Furthermore, because of our social context, studies show that there is a tendency for some children to learn to reject nourishing foods simply because they know they are good for them. Once they know that, they assume the food won't taste good. Children whose parents encourage them to exercise and eat well, and model those healthy behaviours themselves, are more likely to be active and healthy eaters, according to researchers<sup>4</sup>. So we not only have an incentive to eat well for our own health, but we also have a responsibility to set examples for our families and children.

Research suggests that diets rich in brightly coloured fruits and vegetables can reduce the risk of coronary heart disease and stroke by 20-30%, reduce hypertension (high blood pressure), and reduce the risk of bowel problems due to higher levels of fibre in the diet.<sup>5</sup>

There is also an ongoing concern with the nutritional value of food. Due to intensive farming, in the 25 years from 1975 to 2000, US Government statistics from the FDA (Food and Drug Administration) showed a 50% reduction in the amount of calcium in broccoli, watercress had reduced 88% in iron content, and cauliflower had reduced 40% in vitamin C content.

In summary, the best advice is to eat a varied diet rich in naturally brightly coloured fruits and vegetables and also eat oily fish. In an ideal world, we would all eat three home-cooked, organic meals a day. However, that may not be realistic given our modern lifestyles, therefore, we may need nutritional support. The underlying concept of Nikken's nutritional supplements is to utilise the principal of concentrated, organic wholefoods, incorporating the complete nutritional matrix of the food, rather than individual chemically synthesised vitamins.

Many of Nikken's nutritional supplements are certified organic, and the organic growing process is heavily regulated by national governments and international organisations. This means that there are certain criteria that have to be adhered to in order to grow organic crops. The land also has to be certified organic which means there have been no pesticides or non-approved fertilisers used on it in the past three years. Nikken, as a business, has been certified organic in order to sell organic products. Nikken is also registered with the Soil Association.

Traditionally, 'malnutrition' has been taken to mean insufficient nutrition for health. However, excessive calories now need to be included as part of that concern. We need to relearn what makes up a healthy diet. We also need to re-train ourselves and re-educate our eyes and expectations as to what we should eat and how we should live, matching the energy we consume with the energy we use on a long-term and consistent basis.

Once again, the availability of statistics varies across Europe. Obesity levels in the UK have more than trebled in the last 30 years; in England 24.8% of adults are obese and 61.7% are either overweight or obese. Today's obesity levels are more than three times what they were in 1980, when only 6% of men and 8% of

women were obese. The incidence of clinical overweight and obesity is growing across Europe, and in 34 out of 40 European countries over half of the adult male populations are obese; in Luxembourg it's as high as 83% of males.<sup>2</sup>

An obese man or woman can be up to 13 times more at risk of developing serious illnesses<sup>8</sup>:

### Men

- Five times more likely to develop type 2 diabetes
- Three times more likely to develop cancer of the colon
- More than two and a half times more likely to develop high blood pressure.

### Women

- Almost 13 times more likely to develop type 2 diabetes
- More than four times more likely to develop high blood pressure
- More than three times more likely to have a heart attack.

**“People don't choose to be obese, it just happens for a number of reasons. We should stop blaming people for being fat and instead support them in controlling their weight”** Says Professor Jebb.<sup>8</sup>

A healthy diet should provide us with enough nutrients and calories for us to maintain energy balance. An energy balance means that we burn the same amount of calories we consume through daily activities, such as walking, moving, body functions, and even thinking. Poor nutrition and too many calories can affect our ability to lead an enjoyable, active life. In the short term, poor nutrition can contribute to stress, tiredness, and our capacity to work. Longer-term it can lead to the risk of illness and health problems.



All websites accessed on 21st July 2014

1 <http://www.theguardian.com/lifeandstyle/2006/may/25/healthandwellbeing.health>.  
2 [European cardiovascular disease statistics 2012](#)  
3 [American Journal of Clinical Nutrition 2005;81:341-54.](#)  
4 <http://www.sciencedaily.com/releases/2014/05/140508110841.htm>  
5 <http://www.hsph.harvard.edu/nutritionsource/vegetables-full-story/>

**“Malnutrition is estimated to cost the UK more than £13 billion a year.”<sup>6</sup>**

## Key facts

- In 2008, more than 1 billion adults worldwide were overweight<sup>11</sup>
- 65% of the world's population lives in countries where obesity and being overweight kills more people than being underweight<sup>11</sup>
- Once considered a high-income country problem, being overweight and obesity are now on the rise in low and middle-income countries, particularly in urban settings<sup>11</sup>
- It is not uncommon to find under-nutrition and obesity existing side-by-side within the same country, the same community, and the same household<sup>11</sup>
- Many people in the EU don't eat more than two portions of fruit or vegetables a day.<sup>2</sup>

6 <http://www.bapen.org.uk/pdfs/toolkit-for-commissioners.pdf>  
7 <http://www.nhs.uk/Livewell/loseweight/Pages/statistics-and-causes-of-the-obesity-epidemic-in-the-UK.aspx>  
8 [http://ec.europa.eu/health/ph\\_determinants/life\\_style/nutrition/documents/FS%20\\_nutrition\\_070906.pdf](http://ec.europa.eu/health/ph_determinants/life_style/nutrition/documents/FS%20_nutrition_070906.pdf)  
9 [World Health Organisation Fact sheet N°311 - http://easo.org/obesity-facts-figures](http://easo.org/obesity-facts-figures)



# The Science

## Complete Balance™

Europeans generally consume around 500 calories more per day than they did 40 years ago. The statistics show that one in three of us don't do any exercise in our leisure time and we spend an average of five hours a day sitting down<sup>10</sup>. From these figures we can begin to see how our western lifestyles have evolved in a way that is not always conducive to optimum health and wellbeing.

There are over 1 billion adults in the world who are overweight and 300 million of those are classed as obese. In the EU it is estimated that over 200 million adults are overweight or obese, which equates to over half of the adult population.<sup>10</sup>

A quarter of European schoolchildren are now overweight and the figure is growing by 400,000 per year. Research<sup>10</sup> shows that overweight and obese children are more likely to develop other health problems in early adulthood.

Complete Balance™ is a meal replacement shake which has been specially formulated as part of Nikken's natural health philosophy. Rich in essential nutrients, one serving of Complete Balance™ contains only 225 kcal. As part of a weight management diet we should all aim to reduce our intake of saturated fat, and Complete Balance™ only contains 0.5g. In addition to being low in saturated fat, Complete Balance™ contains proteins to help towards the maintenance of normal bones. The presence of magnesium, manganese, biotin, niacin, phosphorus, and calcium contribute to a normal energy-yielding metabolism, and calcium also contributes to the normal function of the digestive enzymes. Three more important ingredients in Complete Balance™ are linoleic acid which helps to maintain normal blood cholesterol levels, riboflavins that contribute to the reduction of tiredness and fatigue, and zinc that contributes to normal carbohydrate and macronutrient metabolism.

Complete Balance™ offers complete nutritional support for one meal in one shake, and it can be used in several different ways.

By replacing two meals a day with a Complete Balance™ meal replacement shake and a suitable review of other lifestyle aspects, you'll quickly be able to see the weight loss benefits.

However, once weight targets are met, replacing just one meal a day can support continued weight maintenance, offering improved wellbeing in an achievable, delicious, and nutritious way.

**We have also created [www.nikken-completebalance.eu](http://www.nikken-completebalance.eu) to support you in achieving your goals with Complete Balance.**



## Lose Weight, Maintain Weight, Gain Weight

At Nikken, we understand the need for a balanced, healthy, and nutritional approach to weight management. That's why we've developed Complete Balance™ - a combination of advanced science and quality ingredients - to provide an effective tool to do just that!

Complete Balance™ meal replacement shakes can help you achieve your body and wellbeing goals, whether that's to lose weight, gain weight or even just to maintain weight and feel better on the inside and out.

Weight loss can seem challenging, particularly if based on past experience, but it doesn't have to be complicated. Complete Balance™ has been developed as part of Nikken's natural health philosophy, and we have managed to pack all the vital minerals, vitamins, and energy you'd normally get from a calorie-controlled meal into a shake. This reduces calories in a delicious and practical way to maintain desired weight targets and to support positive changes in eating habits.

In addition, we have created [www.nikken-completebalance.eu](http://www.nikken-completebalance.eu) to be used exclusively to support you in achieving your goals with Complete Balance™. Here you can find useful hints and tips, weight planners, meal planners, complementary exercise routines, and delicious recipes to use with your Complete Balance™ shake programme.

Whatever your body goals, follow one of our exercise and nutrition programmes to start seeing results!

Programme	Exercise	Nutrition
Weight loss	For exercise hints and tips go to <a href="http://www.nikken-completebalance.eu">www.nikken-completebalance.eu</a>	2 x Complete Balance™ meal replacement shakes per day. 2 x Snacks per day. 1 x Main meal per day.
Wellbeing / Maintenance		1 x Complete Balance™ meal replacement shake per day. 2 x Snacks per day. 2 x Main meal per day.
Growth / Gain		1 x Complete Balance™ meal replacement shake per day. 2 x Snacks per day. 3 x Main meal per day.





## Complete Balance™

Complete wellness from the inside out

- Promotes physical and emotional wellness by helping to balance your dietary intake
- Helps you to lose or maintain weight
- No artificial colours, preservatives or sweeteners
- Suitable for vegetarians, vegans, and people suffering from Coeliac disease

### Weight loss

Start seeing weight loss results by following our Complete Balance™ programme. Our Complete Balance™ shakes are balanced to provide a calorie-controlled meal in every sachet and provide your body with the nutritional support it needs throughout the day. Nikken knows that weight loss isn't easy and that you need to feel motivated to achieve your goals - that's why we've created [www.nikken-completebalance.eu](http://www.nikken-completebalance.eu). Here you'll be able to find recipes, exercises, meal and weight planners, and motivational tips on how to achieve your weight management ambitions!

### Weight maintenance and wellbeing

The Complete Balance™ shake is ideal for maintaining your weight so that you can enjoy your current lifestyle and feel more energised at the same time. By following our specially designed Complete Balance™ plan and replacing one of your meals with a Complete Balance™ shake, you will feel the benefits of the nutritional support that Complete Balance provides.

### Weight gain

By adding one of our Complete Balance™ shakes to your daily diet you can feel the boost to your general wellbeing from the beneficial ingredients. Being high in protein, Complete Balance™ can also help to build lean muscle mass when consumed in conjunction with three healthy meals a day and an exercise regime.

Free from dairy, wheat, and soya, as well as containing 26 essential vitamins and minerals, Complete Balance™ is the meal replacement shake that's suitable for everyone to achieve daily wellbeing.

### How to use

Mix with 200ml of cool water or follow one of our Complete Balance™ shake recipes – go to [www.nikken-completebalance.eu](http://www.nikken-completebalance.eu).

### Storage

Store in a cool, dry place away from direct sunlight.



Don't forget your Shaker. Perfect for use with the Complete Balance™ shakes, the shaker is conveniently portable, so you can stay on track with your Complete Balance™ programme no matter where you go. The plastic used to make our Shakers is also completely free of BPA's.



5609 Nikken Shaker

Content 30 sachets per pouch

5015 Complete Balance™ Meal Replacement Shake – Raspberry Flavour

5010 Complete Balance™ Meal Replacement Shake – Vanilla Flavour

## Raspberry flavour

Nutritional Information/ Nährwertinformation/ Näringsvärde/Ravintosisältö/ Næringsinformasjon/Voedingsinformatie		
	Per 100g/ Pro 100 g/100 g/ Per 100 g	Per 1x60g sachet (made up with water)/Pro 1 x 60 g Portionsbeutel (zubereitet mit Wasser)/Per paise á 60g (blandat med vatten)/60 g annospussi veteen sekoitettuna/ Per 60 g blandet med vann/Per 1 x 60 g zakje (aangevuld met water)
Energy/Energie/Energiaa/Energi	1568/375 KJ/Kcal	940/225 KJ/Kcal
Fat/Fett/Rasvaa/vet (g)	5.9	3.5
Of which/Davon/Varav/Joista/Hvorav/Waarvan		
Saturates/Gesättigte Fettsäuren/Mättat fett/Tyydyttyneitä/Mettede fettsyrer/Verzadigde (g)	0.5	0.3
Mono-unsaturates/Einfach ungesättigte Fettsäuren/Enkelomättat fett/Kerta-tyydyttymättömiä rasvahappoja/Enumettede fettsyrer/Enkelvoudig onverzadigde (g)	2.6	1.5
Polyunsaturates/Mehrfach ungesättigte fettsäuren/Fleromättat fett/Monityydyttämättömiä rasvahappoja/Flerumettede fettsyrer/Meervoudig onverzadigde (g)	2.8	1.7
Linoleic/Linolsäure/Linolsyra/Linolihippoa/Linolsyre/Linolzuur (g)	2.2	1.3
Carbohydrate/Kohlenhydrate/Kolhydrater/ Hiilihydraatteja/Karbohydrater/Koolhydraat (g)	48.6	29.1
Of Which/Davon/Varav/Joista/Hvorav/Waarvan		
Sugars/Zucker/Socker/Sokeria/Sukkerarter/Suikers (g)	42.2	25.3
Polyols/Polyole/Polyoler/Polyoleja/Polyoler/Polyolen (g)	0	0
Starch/Stärke/Stärkelse/Tärkkelystä/Stivelse/Zetmeel (g)	0.9	0.5
Fibre/Ballaststoffe/Fibrer/Kuitua/Kostfiber/Vezel (g)	11.3	6.8
Protein/Eiweiß/Proteiinia/Proteïne (g)	25.5	15.3
Salt/Salz/Suolaa/Zout (g)	0.4	0.2

### Raspberry Ingredients

Isomaltulose, Brown Rice Protein Isolate (30%), Chicory Root Fibre (inulin), Sunflower Oil Powder, Tricalcium Citrate, Raspberry Powder, Potassium Phosphate, Tripotassium Citrate, Flaxseed Powder, Raspberry Flavouring, Thickener (Carboxymethyl Cellulose), Sodium Chloride, Colour (Beetroot Red), Trisodium Citrate, Magnesium Oxide, Sweetener (Steviol glycosides), Ascorbic Acid, Menaquinone-7, Zinc Gluconate, Ferrous Fumarate, dl-alpha Tocopheryl Acetate, Manganese Gluconate, Niacinamide, Retinyl Acetate, Cupric Gluconate, Calcium D-Pantothenate, D-Biotin, Folic Acid, Cholecalciferol, Pyridoxine Hydrochloride, Riboflavin 5-Phosphate Sodium, Thiamine Hydrochloride, Chromium Picolinate, Cyanocobalamin, Potassium Iodide, Sodium Molybdate, Sodium Selenite.



## Vanilla flavour

Nutritional Information/ Nährwertinformation/ Näringsvärde/Ravintosisältö/ Næringsinformasjon/ Voedingsinformatie		
	Per 100g/ Pro 100 g/100 g/ Per 100 g	Per 1x60g sachet (made up with water)/Pro 1 x 60 g Portionsbeutel (zubereitet mit Wasser)/Per påse á 60g (blandat med vatten)/60 g annospussi veteen sekoitettuna/ Per 60 g blandet med vann/Per 1 x 60 g zakje (aangevuld met water)
Energy/Energie/Energiaa/Energi	1549/370 KJ/Kcal	929/222 KJ/Kcal
Fat/Fett/Rasvaa/vet (g)	5.8	3.5
Of which/Davon/Varav/Joista/Hvorav/Waarvan		
Saturates/Gesättigte Fettsäuren/Mättat fett/Tyydyttyneitä/Mettede fettsyrer/Verzadigde (g)	0.5	0.3
Mono-unsaturates/Einfach ungesättigte Fettsäuren/Enkelomättat fett/Kerta-tyydyttymättömiä rasvahappoja/Enumettede fettsyrer/Enkelvoudig onverzadigde (g)	2.6	1.5
Polyunsaturates/Mehrfach ungesättigte fettsäuren/Fleromättat fett/Monityydyttämättömiä rasvahappoja/Flerumettede fettsyrer/Meervoudig onverzadigde (g)	2.7	1.6
Linoleic/Linolsäure/Linolsyra/Linolihappoa/Linolsyre/Linolzuur (g)	2.2	1.3
Carbohydrate/Kohlenhydrate/Kolhydrater/ Hiilihydraatteja/Karbohydrater/Koolhydraat (g)	47.9	28.8
Of Which/Davon/Varav/Joista/Hvorav/Waarvan		
Sugars/Zucker/Socker/Sokeria/Sukkerarter/Suikers (g)	42.2	25.4
Polyols/Polyole/Polyoler/Polyoleja/Polyoler/Polyolen (g)	0	0
Starch/Stärke/Stärkelse/Tärkkelystä/Stivelse/Zetmeel (g)	0.9	0.5
Fibre/Ballaststoffe/Fibrer/Kuitua/Kostfiber/Vezel (g)	11.1	6.6
Protein/Eiweiß/Proteïnia/Proteïne (g)	25.4	15.2
Salt/Salz/Suolaa/Zout (g)	0.4	0.2

### Vanilla Ingredients

Isomaltulose, Brown Rice Protein Isolate (30%), Chicory Root Fibre (inulin), Sunflower Oil Powder, Tricalcium Citrate, Potassium Phosphate, Tripotassium Citrate, Flaxseed Powder, Vanilla Flavouring, Thickener (Carboxymethyl Cellulose), Sodium Chloride, Trisodium Citrate, Magnesium Oxide, Sweetener (Steviol glycosides), Ascorbic Acid, Menaquinone-7, Zinc Gluconate, Ferrous Fumarate, dl-alpha Tocopheryl Acetate, Manganese Gluconate, Niacinamide, Retinyl Acetate, Cupric Gluconate, Calcium D-Pantothenate, D-Biotin, Folic Acid, Cholecalciferol, Pyridoxine Hydrochloride, Riboflavin 5-Phosphate Sodium, Thiamine Hydrochloride, Chromium Picolinate, Cyanocobalamin, Potassium Iodide, Sodium Molybdate, Sodium Selenite.

## Complete Balance™ Oat and Fruit Snack Bar\*

Complementing your Complete Balance™ programme

- Contains a mix of natural ingredients
- Convenient to eat during the day

To complement our Complete Balance™ shakes, we have designed the Complete Balance™ Oat and Fruit Snack Bar. Used as a healthy treat in your daily Complete Balance™ programme, this snack bar will help you to resist the urge to nibble between meals. They're made from wholesome, quality ingredients, adding some of the required essential variety to your diet.

\*The Complete Balance™ Oat and Fruit Snack Bar can be consumed as part of Nikken's Complete Balance programmes or as an additional snack for ordinary consumption.

### How to use

Take the Complete Balance™ Oat and Fruit Snack Bar with you at work, out and about, or at home as part of a Complete Balance™ programme.

### Storage

Store in a cool, dry place away from direct sunlight.



**Content** 5 bars per pack  
**Ingredients** Rolled oats (40%), malt extract (from barley), sunflower oil, dates (11%), cranberries (11%), sunflower seeds, pumpkin seeds, sugar molasses, flaxseeds, ground cinnamon, orange zest.

5020 Complete Balance™ Oat and Fruit Snack Bar

Nutritional Information/Nährwertinformation /Näringsvärde/Ravintotiedot/Næringsinnhold/ Voedingsinformatie/Information Nutritionnelle/ Næringsdeklaration/Информация за хранителната стойност/Átlagos tápérték/Valori Nutriționale/Información Nutricional	
	Per 100g/pro 100g/ Pour 100g/За 100г./100g termékben/ pe 100g/Por 100 g
Energy/Energie/Energi/Energiaa/Valeur énergétique/Енергия/Energia/Energetică/Energía (g/r)	1890 kJ/451 kcal
Fat/Fett/Rasvaa/Vet/Graisses/Fedt/Мазнини/ Zsír/Gräsimi/Grasas (g/r)	21
of which saturates/davon gesättigte fettsäuren/varav mättade fetter/josta tyydyttyneitä/herav mettede fettsyrer/ waarvan verzadigd/dont acides gras saturés/heraf mættede fedtsyrer/ от които наситени/amelybõl telített zsírsavak/din care acizi grași saturați/de las cuales,saturadas (g/r)	2,8
Carbohydrate/Kohlenhydrate/Kolhydrater/ Hiilihydraatteja/Karbohydrat/Koolhydraat/Glucides/ Kuhlhydrat/ Въглехидрати/Szénhidrát/Glucide/ Hidratos de carbono (g/r)	55
of which sugars/davon Zucker/varav socker/josta sokeria/derav sukker/waarvan suikers/dont sucres/heraf sukkerarter/ от които захари/amelybõl cukrok/din care zaharuri/de los cuales, azúcares (g/r)	25
Fibre/Ballaststoffe/Fibrer/Kuitua/Fiber/Vezel/Fibres alimentaires/Kostfibre/Фибри/Rost/Fibra (g/r)	5,4
Protein/Eiweiss/Proteïnia/Proteïne/Protéines/ Протеини/Fehérje/Proteine/Proteínas (g/r)	9,6
Salt/Salz/Suolaa/Zout/Sel/Сол/Сó/Sare/Sal (g/r)	0



# The Science

## Organic Jade GreenZymes®

Nikken's Organic Jade GreenZymes® is the cold-processed, spray-dried juice of the youngest first shoots of barley grass, harvested when the natural nutrient levels are at their peak and carefully processed to ensure that these nutrients are retained.

Although barley has long been a traditional part of the Japanese diet, it was a former research pharmacologist from Japan, Dr Yoshihide Hagiwara MD, who made the study of barley grass his lifelong mission and passion.

Dr Hagiwara studied and qualified in Japan, and he then founded what was to become a major pharmaceuticals company in Osaka. However, due to chemical exposure through his own research, by 1963 Dr Hagiwara had experienced severe personal health problems. He then retired to direct his research into a study of his own health and a path to recovery.

Dr Hagiwara turned to a study of a more natural, nutritional approach to health. Embarking on a research programme which let him to study more than 150 types of plants, including grasses, herbs, vegetables, and fruits, Dr Hagiwara concluded that young barley was "one of the most nutritionally balanced foods in nature".

Over a period of some 40 years, Dr Hagiwara's research continued, leading to awards for invention, science and technology, and to a research partnership with the Environmental Toxicology Department, University of California at Davis, California.

Dr. Hagiwara's research findings related to barley grass can be found here:

- Journal of the Science of Food and Agriculture
- Journal of Agricultural and Food Chemistry
- Journal of the Pharmaceutical Society of Japan
- The Japanese Journal of Inflammation
- The Journal of Nutritional Biochemistry
- FASEB (Federation of American Societies for Experimental Biology) Journal.

Some of these, and studies by other research teams, are also referenced in the appendix on p64.



## Organic Jade GreenZymes®

### Organic body conditioning

- Made from the juice of freshly harvested, youngest shoots of Organic barley grass
- A great source of naturally occurring nutrients
- The result of over 40 years of scientific research
- A complete 'salad in a glass'

#### Origins

Japanese scientist Dr. Yoshihide Hagiwara devoted over 40 years of his life to finding a natural substance that would promote good health and help support the body's nutritional needs. Numerous scientific studies led him to discover the positive effects of green barley grass on human physiology.

#### What are Organic Jade GreenZymes®

Harvested when nutrients are at their peak in the first shoots of young barley grass, the nutrients are then cold-processed and concentrated via patented and award winning juicing and spray-drying techniques. Easily absorbed by the body, only the juice of the grass is used, as this is the richest source of nutrients.

#### How to use

Mix one teaspoon (3g) of powder into 100-150ml of cold, optimised PiMag® water or your favourite cold beverage. For additional nutrition, try it with Ciaga® or simply sprinkle over salads. Do not add to hot liquid.

#### Storage

Store in a cool, dry place away from direct sunlight.

**Content** Box of 30 x 3g sachets, 150g Jar (50 servings)

**Ingredients** Organic, Kosher, 95% young barley grass, 5% Organic maltodextrin, used to prevent oxidation, thereby maintaining a fresh, natural taste.

**20310** Organic Jade GreenZymes® Sachets

**20311** Organic Jade GreenZymes® Jar

#### Nutritional Information

Per 100 g	
Energy	1533kJ / 361kcal
Protein	12.2 g
Carbohydrate	73.6 g
Fat	2.0 g





# The Science

## Ciaga<sup>®</sup>

Ciaga<sup>®</sup> is an Organic, concentrated, 100% juice drink with no added sugar, preservatives, artificial flavours, or colours. Made from blueberries, elderberries, raspberries, blackberries, acai, and grape seed extract, it has an exceptionally high ORAC rating of 1425 µmoleTE per 30ml serving. Studies<sup>13</sup> have shown that foods with high ORAC values can have beneficial effects.

Ciaga<sup>®</sup> is therefore an exceptional source of wholefood nutrition and a useful contribution to a healthy diet of fruit and vegetables. The effects of a healthy diet are described earlier in the overall review of nutrition and science.

Ciaga<sup>®</sup> is also bursting with vitamin C, which can contribute to overall health by assisting with the absorption of iron, promoting normal collagen formation, and contributing to an energy-yielding metabolism.

Ciaga<sup>®</sup> is certified as Organic and Kosher.

A few interesting studies on qualities of purple berries are referenced in the appendix on p64.



## Ciaga<sup>®</sup>

### A cocktail of power fruits

- High ORAC rating
- High in vitamin C - 29 mg per 100 ml
- Increases iron absorption
- Protection of cell constituents from oxidative damage
- Contributes to normal collagen formation
- Contributes to normal energy-yielding metabolism
- 100% juice drink with no added sugar, preservatives, artificial flavours, or colours
- Organic and Kosher

#### What is Ciaga<sup>®</sup>

Ciaga<sup>®</sup> is an Organic juice drink based on concentrated purple berries. Ingredients such as blueberries, elderberries, raspberries, agave, blackberries, acai, and grape seed extract create an astonishingly high ORAC level (1425 µmoleTE per 30 ml serving), as well as providing a naturally sweet and delicious taste.

Sourced from nature, Ciaga<sup>®</sup> is an all-natural, 100% juice drink with no added preservatives and a naturally sweet flavour. The fresh foods in Ciaga<sup>®</sup> are harvested at the peak of their growth cycle to ensure maximum nutritive value.

#### Good for nature

Ciaga<sup>®</sup> contains fresh fruits, and we don't use any pesticides, herbicides, artificial fertilisers, or genetically modified organisms in the growing of the ingredients.

Ciaga<sup>®</sup> bottles have a reduced impact on the environment, containing no harmful bisphenol A or other potentially harmful chemicals, and they are easily recycled. Compared to glass, Ciaga<sup>®</sup> bottles create a smaller carbon footprint and, therefore, have a reduced impact on natural resources.

#### How to use

Enjoy a serving every day – or more should you wish. Mix with your favourite beverage, such as PiMag<sup>®</sup> Water.

#### Storage

Store in a cool dry place until opened. Refrigerate and consume within 30 days of opening.



**Content** Pack of 2 x 946ml bottles

**Ingredients** Fruit content: 91 % minimum. Organic fruit juices from concentrates (84%)(Blueberry, Elderberry, Raspberry); Organic agave nectar; Organic blackberry juice from concentrate; Organic acai pulp; Organic grape seed extract (Carrier: Xanthan gum).

2130 Organic Ciaga<sup>®</sup> (Twin Pack)



# The Science

## Lactoferrin Gold 1.8®

Lactoferrin is an iron-binding, anti-microbial glycoprotein found in, and excreted by, the human immune system.<sup>14</sup>

Nikken's Lactoferrin Gold 1.8® is the result of a partnership with one of the foremost research teams in the field lead by Dr. A.S Narain Naidu, who is a medical microbiologist with more than 30 years of research on bio-active substances and their benefits on human health.

As an international expert on protective and therapeutic applications of natural bio-active compounds, Dr.Naidu has served as professor on the faculties of California State University, Pomona, USA; University of North Carolina-Chapel Hill, USA; Malmö General Hospital, Lund University, Sweden; Pécs Medical University, Hungary; and Institute of Preventive Medicine, Hyderabad, India. He is an elected Fellow or Associate for 18 professional and scientific societies including the New York Academy of Sciences; the American Society of Microbiology; the Institute of Food Technologists; the International Association for Food Protection; and the Royal Society of Medicine (London). Dr. Naidu has also worked for a number of agencies, including the World Health Organization, the Hungarian Ministry of Health, the Directorate of Medicine and Health Services of the Government of India, and the Royal Swedish Academy of Sciences. He has authored research chapters in more than 30 scientific reference books and is also the editor of the highly acclaimed reference volumes, "Natural Food Antimicrobial Systems", and "Lactoferrin" published by the scientific & technical publishers CRC Press.

Early work on Staphylococcal food poisonings and toxic shock syndrome brought International recognition to Dr. Naidu. He received the European Young Scientist Award in 1989 from the European Society for Clinical Microbiology and the Par Excellence Citation for Medical Research in 1992 from the Lund University in Sweden.

Dr. Naidu began his journey with milk lactoferrin research from the mid-1980s in Sweden and published over 50 peer-reviewed scientific articles on this topic. In 1999, he made a major breakthrough in this research area with the invention of 'activated lactoferrin'. This revolutionary technology is commercialised and rewrote the concept of food safety worldwide. In 2005, he was published on "Ultra-cleansing of lactoferrin – nutraceutical implications" in the European Journal of Nutraceuticals & Functional Foods 16(2):7-13, and it was this research which led to the development of Nikken's Lactoferrin Gold 1.8®.

Lactoferrin Gold 1.8® is further remarkable for the traceable supply chain for the source milk from a specific dairy herd in a remote area of New Zealand. However, in spite of the name which might suggest otherwise, Lactoferrin includes no lactose and is suitable for lactose intolerants. Another key feature of Lactoferrin Gold 1.8® is the exceptional purity and the activity derived from a 4-stage ultracleansing purification process uniquely-designed for Nikken.

Containing vitamin C, Lactoferrin Gold 1.8® can contribute to the normal function of the immune system as well as an array of physiological functions.<sup>15</sup>

A few interesting studies involving lactoferrin are referenced in the appendix on p65.



All websites accessed on 22nd July 2014.

<sup>14</sup> <http://www.oxforddictionaries.com/definition/english/lactoferrin>

<sup>15</sup> Wang, Yangxi, (2000). "Human Vitamin C(L-Ascorbic Acid) Transporter SVCT1." *Biochemical and Biophysical Research Communications* 267(2): 488-494.

## Lactoferrin Gold 1.8®

An essential, natural protein helping towards overall wellbeing

- Naturally occurring protein
- Developed by world-class scientists to help with wellness
- Lactose-free and suitable for lactose intolerance
- Contains 60 mg lactoferrin and 60 mg Vitamin C

### What is Lactoferrin

Lactoferrin is an essential protein that occurs naturally in many bodily fluids, such as tears, blood, and saliva. A major component of mother's milk, therefore one of the first sources of nutrition provided to babies after birth, it's also present in the digestive, respiratory, and reproductive systems.

### Specially developed for wellbeing

Dr Narain Naidu – one of the world's leading scientists and patent-holders in international lactoferrin research – has led the world-class research team to develop Lactoferrin Gold 1.8®, an ultra-pure preparation with consequentially high functional activity. Dr Naidu discovered that lactoferrin becomes more powerful when purified. This, in turn, has led to our precision technology purification process that uses approximately three litres of milk to produce a single capsule of Lactoferrin Gold 1.8®. In addition, the milk is sourced from a specific isolated herd of cows in New Zealand that is biologically protected and monitored.

Each capsule also contains a complement of 60mg of vitamin C that can contribute to normal energy-yielding metabolism function and the normal functioning of the nervous system.

### How to use

Take one capsule a day with a glass of water.  
Do not exceed the recommended dose.  
Food supplements should not be used as a substitute for a varied and balanced diet and healthy lifestyle.

### Storage

Store in a cool, dry place at room temperature.



<b>Content</b>	Box of 30 capsules
<b>Ingredients</b>	Capsule shell (hydroxypropylmethylcellulose), Milk protein isolates (lactoferrin), Calcium L-ascorbate, Inulin, Lecithin (Helianthus annuus), Sodium citrate, Turmeric root extract (curcuma longa), Sodium bicarbonate.

26306 Lactoferrin Gold 1.8®

### Nutritional Information

Average values	Amount per capsule	% RDA*
Vitamin C	60 mg	75
Lactoferrin	60 mg	+
Inulin	50 mg	+
Turmeric root extract	30 mg	+





# The Science

## OsteoDenx® and CalDenx®

Made mostly of collagen, bone is living, growing tissue. Collagen is a protein that provides a soft framework, and calcium phosphate is a mineral that adds strength and hardens the framework. This combination of collagen and calcium makes bone strong and flexible enough to withstand stress.

More than 99% of the body's calcium is contained in the bones and teeth. The remaining 1% is found in the blood.

There are two types of bone found in the body – cortical and trabecular. Cortical bone makes up the outer layer of bone, being dense and compact in form. Trabecular bone makes up the inner layer of the bone and has a spongy, honeycomb-like structure.

## Bone Remodelling

Throughout life, bone is constantly renewed through a two-part process called remodelling. This process consists of resorption and formation. During resorption, special cells called osteoclasts break down and remove old bone tissue. During bone formation, new bone tissue is laid down to replace the old. Several hormones, including calcitonin, parathyroid hormone, vitamin D, oestrogen (in women), and testosterone (in men), among others, regulate osteoclast and osteoblast function.

## The Bone Bank Account

Think of bone as a bank account where you 'deposit' and 'withdraw' bone tissue. During childhood and the teenage years, new bone is added to the skeleton faster than old bone is removed. As a result, bones become larger, heavier, and denser. For most people, bone formation continues at a faster pace than removal until bone mass peaks during the third decade of life.

After age 20, bone 'withdrawals' can begin to exceed 'deposits'. For many people, this bone loss can be prevented by continuing to get calcium, vitamin D, exercise, and by avoiding tobacco and excessive alcohol use. Osteoporosis develops when bone removal occurs too quickly, replacement occurs too slowly, or both. You are more likely to develop osteoporosis if you did not reach your maximum peak bone mass during your bone-building years.

## Women, Men, and Osteoporosis

Women are more likely than men to develop osteoporosis. This is because women generally have smaller, thinner bones than men and because women can lose bone tissue rapidly in the first 4 to 8 years after menopause due to the sharp decline of the hormone oestrogen in their bodies. Produced by the ovaries, oestrogen has been shown to have a protective effect on bone. After menopause, bone loss in women greatly exceeds that in men. However, by age 65, women and men tend to lose bone tissue at the same rate. Although men do not undergo the equivalent of menopause, production of the male hormone testosterone may decrease. This can lead to increased bone loss and a greater risk of developing osteoporosis.<sup>17</sup>

Calcium is the most prevalent mineral in the human body. The body is not able to make calcium, so it can only be absorbed through our food intake. In addition to its role in ensuring healthy bones, calcium also plays an important role in other body functions. This includes the function of most organs and physiological processes, electrical and neurotransmission functions (including regulating muscular contractions in general and the heart in particular), as well as ensuring that our blood clots normally.

Magnesium is the second most prevalent mineral within our cells. Magnesium is essential for over 300 enzymatic reactions that take

place in our bodies. Over 60% of the magnesium in our bodies is found in our skeleton, contributing to bone strength. Inadequate magnesium levels are known to result in low levels of blood calcium, potassium levels, retention of sodium, and resistance to actions of vitamin D, which contributes to normal bones and teeth.

An additional trace element that's necessary for the transport of vitamin A into the blood is zinc. Playing a part in growth, development, and reproduction, zinc deficiency can trigger defects in skeletal development.

Closely related to the maintenance of calcium and phosphate levels in the body is Vitamin D.

When the skin is exposed to sunlight, the ultra-violet rays in sunlight activate cholesterol to form vitamin D3 or cholecalciferol. Vitamin D also facilitates calcium and phosphate absorption in the intestines and mineral re-absorption in the kidneys, as well being essential for healthy biological systems, including skin, immune systems, insulin secretion, and drug metabolism.

A few interesting studies related to bone health are referenced in the appendix on p65.

“”

Vitamin D  
sufficiency is  
required for  
optimal  
health.<sup>18</sup>



All websites accessed on 22nd July 2014.

<sup>17</sup> [http://www.niams.nih.gov/Health\\_Info/Bone/About\\_Us/disclaimer.asp](http://www.niams.nih.gov/Health_Info/Bone/About_Us/disclaimer.asp)

<sup>18</sup> Grant, William B., et al., (2005). "Benefits and Requirements of Vitamin D for Optimal Health: A Review." *Alternative Medicine Review* 10(2): 94-111.



## OsteoDenx®

Supporting the maintenance of normal bones

- Contains vitamins D and K, manganese, and zinc which contribute to the maintenance of normal bones
- A food supplement with soluble fibres, vitamins, and grape seed extract
- A formulation exclusive to Nikken
- Suitable for both men and women



### Supporting our skeletal structure

Our bones are unique, forming a rigid structure that not only enables us to move but also protects our soft internal organs. 90% of bone mass forms before you reach 20 years old, and our bones constantly replace dead cells with new ones, regenerating throughout our lives. But this regeneration can slow down as we get older. 50% of women over the age of 50 will break a bone due to poor bone density<sup>19</sup>, so maintaining good bone health is increasingly important as we age, and lifestyle and prevention are key to this.

OsteoDenx® has been developed by Nikken's world-class research team and Dr. Narain Naidu – a medical microbiologist who has spent more than 30 years researching bioactive substances and their effects on human health. The vitamins D and K, manganese, and zinc in OsteoDenx® contribute to the maintenance of healthy bones.

### What's in OsteoDenx®

A lactoferrin-based food supplement with soluble fibres, vitamins, and grape seed extract, OsteoDenx® provides vitamins D and K, as well as manganese and zinc, to help protect your bones. Use in conjunction with CalDenx®, our high-quality calcium supplement, for maximum benefits.

### How to use

Take 1 capsule daily with a glass of water. Recommended to be taken with CalDenx®.

### Storage

Store in a cool, dry place away from direct sunlight.



**Content** Pack of 30 capsules

**Ingredients** Inulin/oligofructose (39%), milk protein isolate, capsule shell (hydroxypropylmethylcellulose), grape seed extract, oat beta glucan, pineapple extract, acidity regulator (sodium bicarbonate), citric acid, anti-caking agents (magnesium stearate, silicon dioxide), manganese sulphate, colour (titanium dioxide), zinc oxide, Vitamin D (cholecalciferol), Vitamin K (phytomenadione), folic acid (pteroylmonoglutamic acid). Suitable for vegetarians.

1541 OsteoDenx®

### Nutritional Information

Typical Analysis	Amount per capsule	% RDA*
Vitamin D (µg)	5	100
Vitamin K (µg)	20	27
Folic Acid (µg)	200	100
Manganese (mg)	2	100
Zinc (mg)	2.8	28
Grape seed extract (Vitis vinifera) (mg)	30	-
Lactoferrin (mg)	95	-
Inulin/oligofructose (fibre) (mg)	230	-

\* RDA = Recommended Daily Amount Suitable

## CalDenx®

A calcium and magnesium food supplement

- Contains vitamins K and D
- Contributes towards the maintenance of normal bones and teeth
- Designed to be used with OsteoDenx®

### Calcium for strong bones

Calcium is vital for maintaining healthy bone structure, whilst also helping to support other body systems. In order to maintain these systems the necessary calcium is withdrawn from the bones and, if not replaced, this can lead to weakened bones.

When taken on a regular basis CalDenx®, a calcium supplement with vitamins and minerals, can help contribute towards the maintenance of normal bones and teeth. Use in conjunction with OsteoDenx®.

### How to use

Take three tablets daily with meals. Suitable for vegetarians.

### Storage

Store in a cool, dry place away from direct sunlight.



**Content** Bottle of 90 capsules

**Ingredients** Inulin/oligofructose (39%), milk protein isolate, capsule shell (hydroxypropylmethylcellulose), grape seed extract, oat beta glucan, pineapple extract, acidity regulator (sodium bicarbonate), citric acid, anti-caking agents (magnesium stearate, silicon dioxide), manganese sulphate, colour (titanium dioxide), zinc oxide, Vitamin D (cholecalciferol), Vitamin K (phytomenadione), folic acid (pteroylmonoglutamic acid).

1551 CalDenx®

### Nutritional Information

Typical Analysis	Per 3 tablets	% RDA*
Vitamin D (µg)	4.5	90
Vitamin K (µg)	70	93
Calcium (mg)	720	90
Magnesium (mg)	270	72
Chromium (µg)	40	100

\* RDA = Recommended Daily Amount Suitable

<sup>19</sup> <http://nof.org/articles/235>. All websites accessed on 22nd July 2014.





# The Science

## Kasai®

Based on Hippocrates' maxim, 'Let food be thy medicine', Nikken combines the wholesomeness of nature with the very latest scientific breakthroughs. We take the guesswork out of nutrition to offer you a range of core nutrition essentials and targeted supplements.

Our range of Kasai® fruit and vegetable powders naturally contain vitamins and minerals, and they also provide a vast array of phytonutrients which benefit both male and female health.

Essential Fatty Acids are important for your diet and you can get more of them by eating fish. Fish provides nucleic acids needed for our cells, as well as Omega 3 and Omega 6 oils. Omega 3 oils have been shown to contribute to healthy mental development. For maximum benefit you need a daily intake of 250mg of Omega 3 oil Docosahexaenoic acid (DHA).

Kasai® for Men contains tomato which is a rich source of lycopene, and Kasai® for Women contains 78% of the recommended daily allowance of vitamin C.

Purple berries are strong antioxidants, which means they have a high ORAC count. The daily recommendation for ORAC consumption is 3000 units. Using Kasai® Purple Berries and Ciaga<sup>™</sup> together will make up 40% of the daily recommendation of ORAC before you even start eating, and they only take up about 1.5% of the daily recommended calorie intake.

## Kasai®

### Optimum nutrition for busy lifestyles

- Targeted supplements to help support your body's wellbeing needs
- Based on concentrated wholefood supplements
- Combines Eastern and Western natural technologies to help provide comprehensive, balanced nutrition
- With the exception of Kasai® Omega Oils, all of the Kasai® range is suitable for vegetarians

## Kasai® for Women

Formulated with soy isoflavones, cranberries, and acerola cherry to support overall wellbeing in women. Cranberries are packed full of proanthocyanidins, while acerola cherries supply 78% of your recommended daily allowance of vitamin C. This helps to reduce tiredness and fatigue. Vitamin C also contributes to normal physiological functions including the immune system, metabolic function, and the normal production of collagen.

### How to use

Take 2 capsules per day with a glass of Nikken PiMag® water.

### Storage

Store in a cool, dry place away from direct sunlight.

### Caution

Nikken's wholefood supplements are not intended to replace a varied and balanced diet but to support a healthy lifestyle. Do not exceed the recommended dose. Keep out of the reach of children.



**Content** Bottle of 60 capsules  
**Ingredients** Acerola powder [Malpighia punicifolia, 45%, contains maltodextrin, antioxidant: ascorbic acid], capsule shell: hydroxypropylmethylcellulose, soya extract [Glycine max, 16%], brown rice powder [Oryza sativa], cranberry powder [Vaccinium macrocarpon, 1.5%, contains maltodextrin], anti-caking agent: magnesium stearate.  
 Contains soya. Suitable for vegetarians.

### Nutritional Information

Typical Analysis	Per 2 Capsules
Vitamin C (mg)	62.5 (78%)*
Isoflavone (mg)	35

\* RDA = Recommended Daily Amount Suitable

2516 Kasai® Women



## Kasai® for Men

Containing lycopene, powdered garlic, tomato, and pumpkin seed, this variety of Kasai is designed to help contribute to men's wellbeing. Two capsules provide 6mg of high-quality lycopene, found naturally in tomatoes, which is a carotenoid known to have beneficial nutritive effects.

### How to use

Take 2 capsules per day with a glass of Nikken PiMag® water.

### Storage

Store in a cool, dry place away from direct sunlight.

### Caution

Nikken's wholefood supplements are not intended to replace a varied and balanced diet but to support a healthy lifestyle. Do not exceed the recommended dose. Keep out of the reach of children.



**Content** Bottle of 60 capsules

**Ingredients** Tomato Powder (31%), Pumpkin Seed Powder (27%), Garlic Powder (23%), Capsule Shell: Hydroxypropylmethylcellulose, Lycopene, Anticaking Agent: Silicon Dioxide.

### Nutritional Information

Typical Analysis	Per 2 Capsules
Energy (kcal / kJ)	4.26 / 17.95
Protein (g)	0.118
Carbohydrate (g)	0.770
Fat (g)	0.077
Lycopene (mg)	6

2515 Kasai® Men



## Kasai® Omega Oils

The combination of borage oil and fish oil contains essential Omega 3 and Omega 6. The body can't naturally create these essential fatty acids, so they can only be obtained from food or supplements. The sardines and anchovies used to create our Kasai® Omega Oils are sustainably fished. An advanced purification method ensures that any risk of environmental pollutants or heavy metals are removed for an extremely pure end product.

### How to use

Take 2 capsules per day with a glass of Nikken PiMag® water.

### Storage

Store in a cool, dry place away from direct sunlight.

### Caution

Nikken's wholefood supplements are not intended to replace a varied and balanced diet but to support a healthy lifestyle. Do not exceed the recommended dose (however, overall 250 mg DHA is required per day for brain health support). Keep out of the reach of children.



**Content** Bottle of 60 capsules

**Ingredients** Fish Oil Powder (75%), Borage Oil Powder (9%), Capsule Shell: Hydroxypropylmethylcellulose, Maltodextrin, Tapioca Starch, L-ascorbyl palmitate, ascorbic acid, and mixed tocopherols. Contains soya.

### Nutritional Information

Typical Analysis	Per 2 Capsules
Energy (kcal / kJ)	6.4 / 26.7
Protein (g)	0.02
Carbohydrate (g)	0.85
Fat (g)	0.33
Saturated fat (mg)	0.01
Single unsaturated fat (mg)	0.01
Poly unsaturated (mg)	320
GLA (omega-6) (mg)	11.0
EPA (omega-3) (mg)	97.9
DHA (omega-3) (mg)	65.0
Cholesterol (mg)	0.0

2519 Kasai® Omega



## Kasai® Multi-Vitamin and Minerals

With a broad array of wholefood fruit and vegetable powders – pineapple, orange, apple, apricot, cherry, peach, strawberry, papaya, grape, grapefruit, blueberry, raspberry, blackcurrant, blackberry, broccoli, carrot, and onion – Kasai® provides a supportive range of vitamins and minerals. It also provides the associated phytonutrients and nutritional matrices to help address your daily nutritional needs.

### How to use

Take 2 capsules per day with a glass of Nikken PiMag® water.

### Storage

Store in a cool, dry place away from direct sunlight.

### Caution

Nikken's wholefood supplements are not intended to replace a varied and balanced diet but to support a healthy lifestyle. Do not exceed the recommended dose. Keep out of the reach of children.



**Content** Bottle of 60 capsules  
**Ingredients** Calcium carbonate, capsule shell: hydroxypropylmethylcellulose, magnesium oxide, fruit powder blend (10%) [pineapple, orange, apple, apricot, cherry, peach, strawberry, papaya, grape, grapefruit, blueberry, raspberry, blackcurrant, blackberry], vegetable powder blend (9%) [broccoli, carrot, onion], vitamin C (ascorbic acid); ferrous fumarate, zinc sulphate, vitamin E (d-alpha-tocopherol); niacin (nicotinamide); vitamin A (retinyl palmitate), pantothenic acid (calcium D pantothenate); vitamin B6 [pyridoxine hydrochloride]; thiamine hydrochloride, vitamin D (cholecalciferol); riboflavin, folic acid, potassium iodide, biotin, vitamin B12 (cyanocobalamin). Contains gluten. Suitable for vegetarians.

### Nutritional Information

Typical Analysis	Per 2 capsules	% RDA*
<b>Vitamins</b>		
Vitamin A (mcg)	800	100
Vitamin D (mcg)	5	100
Vitamin E (mg)	10	83
Vitamin C (mg)	60	75
Vitamin B1 Thiamin (mg)	1.4	127
Vitamin B2 Riboflavin (mg)	1.6	114
Niacin (mg)	18	113
Vitamin B6 (mg)	2	143
Folacin (mcg)	200	100
Biotin (mcg)	40	80
Vitamin B12 (mcg)	1	40
Pantothenic acid (mg)	4	67
<b>Minerals</b>		
Calcium (mg)	256	32
Magnesium (mg)	90	24
Iron (mg)	14	100
Iodine (mcg)	150	100
Zinc (mcg)	10	100

2561 Kasai® Multi



## Kasai® Purple Berries

Purple berries are used in traditional Eastern medicine for a variety of wellbeing needs. Nikken's Kasai® Purple Berries contains a blend of chokeberry, elderberry, blueberry, and blackcurrant. Two capsules provide an oxygen radical absorption capacity (ORAC) of 300 µmoleTE.

### How to use

Take 2 capsules per day with a glass of Nikken PiMag® water.

### Storage

Store in a cool, dry place away from direct sunlight.

### Caution

Nikken's wholefood supplements are not intended to replace a varied and balanced diet but to support a healthy lifestyle. Do not exceed the recommended dose. Keep out of the reach of children.



**Content** Bottle of 60 capsules  
**Ingredients** Thickening Agent: Acacia Gum, Powdered Berries Concentrate (23%) (in variable proportions: Chokeberry, Elderberry, Blueberry, Blackcurrant), Apple (10%); Capsule Shell: hydroxypropylmethylcellulose, flavourings.

### Nutritional Information

Typical Analysis	Per 2 Capsules
Energy (kcal / kJ)	2.88 / 12.2
Protein (g)	0.02
Carbohydrate (g)	0.66
Fat (g)	0.02

2518 Kasai® Purple Berries



# Nutrition Appendix

## Barley Grass

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# Skincare

## The Why

### Skincare

The skin is the largest organ of the body and is also the only one to be exposed completely to the environment. Whilst our skin will last our whole life, each skin cell will typically be replaced within 2-4 weeks<sup>4</sup>, including hair follicles, oil glands, sweat glands, nerves, and blood vessels.

Our daily surroundings and habits can take a lot out of our skin: travelling, air conditioning, hormonal changes, not getting enough sleep, and not drinking enough water. That's why it's important to have a good skincare routine that cleanses thoroughly, rebalances, and reinvigorates your skin.

Naturally full of trace elements, mineral salts, and active ingredients that work in balance with our own biological systems, seaweed is the ideal beauty tool. It can help to soften, remineralise, detoxify, nourish, and assist in collagen synthesis to promote youthfulness.

To keep skin looking radiant it's vital it remains hydrated, and this is an area seaweed excels in. Containing substances known as 'natural moisturising factors', these keep the skin moist and pliable by attracting and holding water.

The True Elements™ range is designed to cover your daily skincare needs from head to toe, providing cleansers and toners, facial skincare, and body care products to keep skin looking good and feeling comfortable.





## Our skin is unique

Human skin is made up of four layers<sup>8</sup>:

- The outer surface is called the 'acid mantle'. Designed to discourage and protect from bacteria, the acid mantle is created by a mixture of natural oils and sweat on the surface of the skin. Most soaps and skin cleansers tend to be alkaline<sup>2</sup> and therefore counteract and strip the protective acid mantle from the skin. Using True Elements™ Velvet Cleansing Milk, which is designed to protect the pH-balance of your skin, can help to maintain it
- The outer layer of the skin itself, the Epidermis, is the defensive physical barrier and also protects the skin from water loss. The epidermis has no blood supply of its own and relies on diffusion from the layer of skin below<sup>3</sup>
- The second layer is a cover of soft tissue called the Dermis, and it contains blood vessels, nerves, hair follicles, and oil glands; it also provides nutrients to the epidermis
- The final layer is called the subcutaneous layer and consists of fat beneath the Dermis that supplies nutrients to the rest of the skin, cushioning and helping to insulate the body.

Our skin displays a greater range of variations and characteristics than any other mammal, from the most delicate skin of our lips or eyelids through to the harder-wearing skin on the soles of our feet that is typically 100 times thicker<sup>1</sup>. Similarly, skin types with different functions have certain characteristics – more or fewer hair follicles, oil-producing glands, sweat glands, nerve densities, and sensitivities.

## Our skin and the environment

As the body ages the skin tends to become more frail: the epidermis thins, even though the number of cell layers remains unchanged, so the cells become smaller and less 'plump'. Changes in the skin's pigmentation cells also occur so that the skin can appear thinner and more translucent, sometimes with pigmented spots appearing in sun-exposed areas. Variations in the connective tissue reduce the skin's strength and elasticity; once again, sun-exposed areas are more prone to this. The blood supply to the dermis can also be affected, leading to a greater risk of bruising and similar conditions. In more mature skin the oil glands tend to produce less oil and the subcutaneous fat layer also thins, leading to a greater chance of wrinkles.<sup>5</sup>

Although some exposure to the sun is important to help the body synthesise vitamin D, ultraviolet radiation is also one of the main factors for premature ageing of the skin. Interesting research has shown the skin damage that can be caused just by driving – the side of the face next to the window usually shows significantly greater damage and ageing compared to the side of the face away from the window and the sun. One study showed three times more malignant melanomas on the side of the face closest to the car window when compared with the other side of the face.<sup>6</sup>

Smoking is also ageing and damaging for the skin. It is thought that smoking reduces the skin's natural elasticity by causing the breakdown of collagen and reducing collagen production (collagen is a protein that supports skin strength). Collagen naturally degrades as we get older, leading to the formation of wrinkles, but smoking makes this happen sooner. Smoking also causes the tiny blood vessels in the skin to constrict, reducing the supply of oxygen to the skin.<sup>7</sup>

Drinking alcohol can cause the body and skin to become dehydrated, so drinking sufficient high-quality water can help balance that negative effect. Sleep is another important factor and tiredness can increase the risk of premature ageing.<sup>7</sup>

The True Elements™ range incorporates natural organic ingredients and is designed to work with the natural pH of your skin, promoting youthfulness and enhancing your skin's natural beauty.

All websites accessed on 21st July 2014

<sup>1</sup> <http://www.livingnature.com/pages/understanding-your-skin>

<sup>2</sup> <http://www.ijdv1.com/article.asp?issn=0378-6323;year=2001;volume=67;issue=6;page=290;epage=291;aulast=Tyekkhan>

<sup>3</sup> <http://www.britannica.com/EBchecked/topic/547591/human-skin>

<sup>4</sup> [http://www.histology.leeds.ac.uk/skin/epidermis\\_layers.php](http://www.histology.leeds.ac.uk/skin/epidermis_layers.php)

<sup>5</sup> <http://www.nlm.nih.gov/medlineplus/ency/article/004014.htm>

<sup>6</sup> <http://www.sciencedirect.com/science/article/pii/S0190962209015011>

<sup>7</sup> <http://www.nhs.uk/Livewell/skin/Pages/Keepskinhealthy.aspx>

<sup>8</sup> <http://www.hse.gov.uk/skin/professional/causes/structure.htm>



# The Technology

## The benefits of seaweed

The seaweeds in the True Elements™ range provide an excellent source of minerals, particularly sodium, potassium, calcium, magnesium, and phosphate. These minerals are absorbed into the cells by osmosis, stimulating keratins to absorb more water from extracellular fluids.

The variety of seaweeds contained in our powerful skincare work synergistically together to offer remarkable benefits to the skin.

*Chodrus crispus* is a red algae with a purple-brown colour. Having a cartilaginous consistency, its purpose is to protect the skin's water supply, helping to soothe, nourish, and regenerate skin cells.

*Crithmum maritimum* is a perennial plant with blue-green stems and leaves, and yellow-green flowers. Rich in amino acids and phenolic compounds, it helps to reinforce antioxidant protection and stimulates skin cell renewal for improved anti-ageing results. It also contributes to radiance and tone.

*Ulva lactuca* is a green alga that grows in cold seas and is collected in Springtime. In True Elements™ it helps to energise, promote radiance, and boost elastin fibres to assist with anti-ageing.

*Laminaria digitata* is a brown algae that has the characteristic of emerging only in Spring tides. The harvesting period is from May to October and this algae is rich in minerals and trace elements. These help to accelerate cellular exchanges and stimulate micro-circulation to improve hydration, radiance, and skin freshness.

*Fucus Vesiculosus* is a brown algae which grows abundantly on the coasts of Brittany, where it concentrates the active substances of the sea. Harvested by hand, it contains magnesium, fucoidan, retinol, and vitamin A. Found in our Stimulating Shower Gel, its purpose is to increase micro-circulation of the blood in our skin.

Polysaccharides are inherent in many seaweeds and have two roles: to keep the skin hydrated by forming a protective layer and to help release the other active ingredients contained in the True Elements™ products for maximum benefit.

The True Elements™ range excludes synthetic fragrances and pure essential oils which can cause sensitivity in some people's skin, so only the gentler extracts of essential oils are used and the natural fragrances linalool, limonene, and citral. Totally natural, they are added to True Elements™ in very small amounts to enhance the overall appeal and ensure the range is suitable for use by both men and women.

In order to complement the potency of the seaweed ingredients, Nikken's scientists have expertly formulated True Elements™ products with other natural ingredients.

Aloe Vera helps to keep skin supple and it also hydrates, energises, and heals the skin.

Hyaluronic acid is a natural part of the human physiological function as part of the connective tissues, epithelial cells, and neural tissues. Each day it is utilised, degraded, and resynthesised, although with decreasing efficiency as the skin ages. Hyaluronic acid is also an exceptional moisturising molecule, with the ability to absorb up to 1000 times its own weight in water, and thus a powerful moisturising agent for the skin. It also has the ability to stimulate collagen production, also needed as the skin ages and wrinkles tend to form.

Further natural enriching oils such as shea butter, sunflower seed oil, palm kernel oils, and olus oils are added to certain True Elements™ products for skin nourishment.

## Sustainable sources

The seaweed species in True Elements™ are harvested off the coast of Brittany in North-West France, recognised as the richest environment in Europe for seaweed with over 300 species. It was also recognised as a UNESCO biosphere reserve in 1988 and as France's first marine park in October 2007.

The seaweed is collected to strict criteria: the correct season, species, weather conditions, and in a way that maintains the environment. The harvesting method used for True Elements™ ensures that the seaweed grows again in a sustainable manner.

The seaweed actives are then extracted using very precise techniques. Artificially dried straight after being harvested, the seaweeds are then washed and put through the largest low-temperature dryer in Europe. The whole process is completed within 24 hours of harvesting to ensure all of the precious active ingredients are preserved.

True Elements™ is natural, organic, and free from paraben, GMO's, mineral oils, phthalates, phenoxyethanol, PEG, EDTA, synthetic colourings and fragrances. Made from the highest quality ingredients, True Elements™ skincare range is perfectly balanced for use on our delicate skin.

The True Elements™ range is structured for easy use and powerful benefits.

The basics are as simple as '1, 2, 3' for both men and women (cleanse, tone, and moisturise). These three steps help to protect the skin and reduce the appearance of premature ageing, while the Stimulating Shower Gel and Moisturising Body Lotion are designed for the whole body.

For more mature skin, we offer a special Anti-Ageing Serum for an extra age-prevention boost, followed by an enriched Youthful Face Cream to complete the anti-ageing package.

### Key facts

- Seaweed has been used for the last 4000 years as a skincare product and dietary supplement
- Most soaps and cleansers are not pH balanced and strip the acid mantle<sup>2</sup>
- Skin is made up of four layers – the acid mantle, the epidermis, the dermis, and the subcutaneous layer
- Alcohol and smoking can speed up the skin's ageing process
- True Elements™ contains natural organic ingredients harvested from a UNESCO reserve in France
- Suitable for both men and women



## Under 40s

### 1 Velvet Cleansing Milk

Code: 2040 (200ml)

Apply milk to dry skin and massage with circular movements. Remove with warm water or a wet cotton pad.



### 2 Fresh Tonic Lotion

Code: 2041 (200ml)

A non-clogging formula, apply some of the tonic lotion to a cotton pad and gently wipe onto your face in upward motions.



### 3 Radiance Scrub

Code: 2052 (50ml)

Once or twice a week, squeeze a small amount of scrub onto your fingertips. Make gentle circular motions across your face and neck, avoiding the eye area. Rinse off with lukewarm water. Reapply Fresh Tonic Lotion before continuing the regime.



NEW

### 4 Nutritional Mask

Code: 2051 (50ml)

Once or twice a week, apply liberally on your face and neck, avoiding the eye area. Allow to absorb for 10 minutes. Gently wipe away any residue with a cotton pad and Fresh Tonic Lotion.

NEW



### 5 Nourishing Face Cream

Code: 2044 (50ml)

Take a small amount of Face Cream using the spatula and gently rub over your palms to evenly spread. Starting from the centre of your face, gently press the cream onto your skin.





## Over 40s

1

### Velvet Cleansing Milk

Code: 2040 (200ml)

Apply milk to dry skin and massage with circular movements. Remove with warm water or a wet cotton pad.



5

### Anti-Ageing Serum

Code: 2042 (30ml)

Take a small amount of serum and gently rub it across your palms and fingers. Starting from the centre of your face, gently press the Serum onto your skin. Allow to absorb before applying face cream.



2

### Fresh Tonic Lotion

Code: 2041 (200ml)

A non-clogging formula, apply some of the tonic lotion to a cotton pad and gently wipe onto your face in upward motions.



6

### Anti-Ageing Eye Serum

Code: 2050 (15ml)

Apply a small amount of serum to the tip of each middle finger. With a soft patting motion, apply to the under eye area, making sure you work your way from the inner corner of your eye to the outer corner and ensuring you don't pull the skin.



3

### Radiance Scrub

Code: 2052 (50ml)

Once or twice a week, squeeze a small amount of scrub onto your fingertips. Make gentle circular motions across your face and neck, avoiding the eye area. Rinse off with lukewarm water. Reapply Fresh Tonic Lotion before continuing the regime.



NEW

NEW

7

### Youthful Face Cream

Code: 2043 (50ml)

Take a small amount of Face Cream using the spatula and gently rub over your palms to evenly spread. Starting from the centre of your face, gently press the cream onto your skin.







1

**Stimulating Shower Gel**

Code: 2045 (200ml)

Wet your skin all over, and then squeeze about a pea sized amount of shower gel into your palm. Gently lather your skin by using circular motions. Rinse off afterwards.



2

**Moisturising Body Lotion**

Code: 2046 (200ml)

Take a small amount of lotion in the palm of your hand and gently rub your palms together. Then rub on your skin in soft, upward sweeps, allowing any excess to absorb in naturally.



3

**Hand and Foot Cream**

Code: 2053 (50ml)

Take a small amount in the palm of your hand and gently rub your palms together so it's evenly spread across them. Then apply to your hands or feet in small circular motions, paying particular attention to drier areas.

NEW





## Radiance Scrub

Revitalise and reenergise your complexion

- Buffs skin, leaving it smooth and refined
- Oxygenates cells and improved complexion luminosity
- Removes dead skin cells and impurities
- Contains minerals, trace elements and marine micronutrients

The soft, natural brown hazelnut and white rice granules in the Radiance Scrub gently buff the surface of the skin, removing dead cells and impurities, and leaving the skin purified and oxygenated. Containing minerals, trace elements and micronutrients, these high-quality ingredients energise the skin for a brighter complexion, while the seaweed extract Chondrus moisturises the upper layers of the epidermis. With a soothing, melting texture, the Radiance Scrub is suitable for all skin types, even the more sensitive ones.

### How to use

Once or twice a week, squeeze a small amount of scrub onto your fingertips. Make gentle circular motions across your face and neck, avoiding the eye area. Rinse off with lukewarm water. Reapply Fresh Tonic Lotion before continuing the regime.

### Storage

Store in a cool dry place away from direct sunlight. Use within 6 months after opening.

### Certification characteristics:

99.08 % of the total ingredients are from natural origin  
22.78% of the total ingredients are from organic farming



NEW

## Nutritional Mask

Intensively nourish and restore brightness

- Contains Shea butter, Porphyra extract and plant oils
- Stimulates the skin to restore brightness
- Hyaluronic acid plumps the skin and boosts collagen synthesis
- Seaweed extracts reenergise the skin

The Nutritional Mask instantly soothes skin while deeply nourishing it and boosting brightness. Aloe Vera moisturises the epidermis, and hyaluronic acid plumps from the inside out, stimulating the synthesis of collagen to help the skin appear firmer and smoother. The three complex seaweed ingredients in the Nourishing Mask are rich in minerals, feeding the top layers of the skin so that it recovers comfort. Suitable for all skin types, even the more sensitive ones.

### How to use

Once or twice a week, apply liberally on your face and neck, avoiding the eye area. Allow to absorb for 10 minutes. Gently wipe away any residue with a cotton pad and Fresh Tonic Lotion.

### Storage

Store in a cool dry place away from direct sunlight. Use within 6 months after opening.

### Certification characteristics:

99.06 % of the total ingredients are from natural origin



NEW

<b>Content</b>	50ml
<b>Ingredients</b>	Aqua (Water/Eau), Crithmum Maritimum Extract*, Caprylic/Capric Triglyceride, Cetearyl Alcohol, Glycerin, Oryza Sativa (Rice) Hull
	Powder, Behenyl Alcohol, Aloe Barbadensis Gel (Leaf Juice)*, Sodium PCA, Sodium Stearoyl Glutamate, Chondrus Crispus (Carrageenan) Extract, Laminaria Digitata Extract, Ulva Lactuca Extract, Benzyl Alcohol, Sodium Carrageenan, Corylus
Avellana (Hazel)	Shell Powder, Xanthan Gum, Sodium Benzoate, Citric Acid, Lactic Acid, Dehydroacetic Acid, Parfum (Fragrance), Sodium
Phytate,	Potassium Sorbate, Linalool, Limonene . 321-2-M0626
	*Ingredient from organic farming
	Made in France.

<b>Content</b>	50ml
<b>Ingredients</b>	Aqua (Water/Eau), Crithmum Maritimum Extract*, Helianthus Annuus (Sunflower) Seed Oil*, Olus Oil (Vegetable Oil/Huile Végétale),
	Caprylic/Capric Triglyceride, Glycerin, Aloe Barbadensis Gel (Leaf Juice)*, Butyrospermum Parkii (Shea Butter) Extract, Cetyl
Alcohol,	Sodium PCA, Behenyl Alcohol, Sodium Stearoyl Glutamate, Chondrus Crispus (Carrageenan) Extract, Laminaria Digitata
Extract, Ulva	Lactuca Extract, Benzyl Alcohol, Xanthan Gum, Lactic Acid, Porphyra Umbilicalis Extract*, Tocopherol, Parfum (Fragrance),
Sodium	Benzoate, Citric Acid, Dehydroacetic Acid, Sodium Hyaluronate, Sodium Phytate, Potassium Sorbate, Limonene, Linalool . 361-
2-	M0626



## Anti-Ageing Eye Serum

Keep the fragile eye contour refreshed and looking youthful

- Minimises fine lines and wrinkles
- Contains Ulva extract to plump the skin
- Hyaluronic acid helps stimulate the synthesis of collagen

The seaweed extract Ulva stimulates the cellular metabolism to improve complexion luminosity. The hyaluronic acid plumps the skin from the inside out and helps to stimulate collagen synthesis so skin appears firmer, also helping to reduce the appearance of fine lines and wrinkles in the fragile eye contour area. The seaweed extract Chondrus helps to remineralise and regenerate by providing minerals and trace elements, meaning the skin recovers radiance. Suitable for all skin types, even the more sensitive ones.

### How to use

Apply a small amount of serum to the tip of each middle finger. With a soft patting motion, apply to the under eye area, making sure you work your way from the inner corner of your eye to the outer corner and ensuring you don't pull the skin.

### Storage

Store in a cool dry place away from direct sunlight. Use within 6 months after opening.

### Certification characteristics:

99.30 % of the total ingredients are from natural origin.

21.75 % of the total ingredients are from organic farming.



NEW

## Hand and Foot Cream

A cocoon of moisture to protect and soothe hands and feet

- Soothes dry hands and feet
- Contains Shea butter to nourish skin
- Contains the seaweed extract Chondrus to moisturise
- Protects and nourishes skin straight after application

A luxurious and rich cream, our Hand and Foot Cream wraps your skin in a soft, comforting cocoon. Non-greasy, it protects hands and feet, whilst the Chondrus seaweed extract moisturises the upper layers of the epidermis, while Shea Butter nourishes and smoothens skin. Suitable for both men and women, the clean, contemporary packaging makes this product portable for convenient use. Suitable for all skin types, even the more sensitive ones.

### How to use

Take a small amount in the palm of your hand and gently rub your palms together so it's evenly spread across them. Then apply to your hands or feet in small circular motions, paying particular attention to drier areas.

### Storage

Store in a cool dry place away from direct sunlight. Use within 6 months after opening.

### Certification characteristics:

98.98 % of the total ingredients are from natural origin

20.79 % of the total ingredients are from organic farming



NEW

<b>Content</b>	15ml
<b>Ingredients</b>	Aqua (Water/Eau), Glycerin, Alcohol, Sodium PCA, Xanthan Gum, Crithmum Maritimum Extract*, Carrageenan, Chondrus Crispus
	(Carrageenan) Extract*, Laminaria Digitata Extract*, Ulva Lactuca Extract*, Sodium Hyaluronate, Benzyl Alcohol, Panax Ginseng Root
	Extract, Citric Acid, Sodium Benzoate, Aloe Barbadensis Leaf Juice*, Sodium Phytate, Dehydroacetic Acid, Sodium Hydroxide, Potassium Sorbate . 403-N0422
	*Ingredient from organic farming
	Made in France.

2050 Anti-Ageing Eye Serum

<b>Content</b>	50ml
<b>Ingredients</b>	Aqua (Water/Eau) - Crithmum Maritimum Extract* - Olus Oil (Vegetable Oil/Huile Végétale) - Caprylic/Capric Triglyceride - Glycerin
	- Sodium PCA - Glyceryl Stearate - Cetearyl Alcohol - Butyrospermum Parkii (Shea) Butter Extract - Hydrogenated Palm Kernel
	Glycerides - Sodium Stearoyl Glutamate - Lauryl Laurate - Laminaria Digitata Extract - Ulva Lactuca Extract - Chondrus Crispus
	(Carrageenan) Extract - Benzyl Alcohol - Cocoglycerides - Cetyl Palmitate - Xanthan Gum - Parfum (Fragrance) - Lactic Acid - Hydrogenated Palm Glycerides - Sodium Benzoate - Citric Acid - Tocopherol - Dehydroacetic Acid - Sodium Phytate - Linalool
	-
	Limonene . 315-K0228



## Velvet Cleansing Milk

Remove the pollution of the day

- Gently removes impurities and make-up
- Maintains skin's moisture content
- pH-balanced to protect the skin
- Leaves skin looking clean and radiant
- Organic – certified by Ecocert
- Contains seaweed extracts Laminaria, Chondrus and Ulva Algae

Our Velvet Cleansing Milk gently removes all traces of make-up and impurities whilst protecting the natural balance of your skin. Seaweed extracts Laminaria, Chondrus, and Ulva provide trace elements and minerals for gentle nourishment and to help maintain hydration through the cleansing process.

### How to use

In the morning and evening, apply with light circular movements on face and neck. Rinse with lukewarm water and perfect cleansing with True Elements™ Fresh Tonic Lotion.

### Storage

Store in a cool dry place away from direct sunlight.  
Use within 6 months after opening.

### Certification characteristics:

99.06% of the total ingredients are from natural origin.  
20.85% of the total ingredients are from organic farming.  
Natural and Organic Cosmetic certified by Ecocert Greenlife according to Ecocert Standard available at <http://cosmetics.ecocert.com>



## Fresh Tonic Lotion

Perfecting your cleansing routine

- Laminaria helps activate cellular exchange and blood micro-circulation in the skin's surface
- pH-balanced to protect the skin
- Contains Aloe Vera to promote suppleness
- Crithmum maritimum to help skin recover tone and radiance

Nobody wants tired-looking skin! Our Fresh Tonic Lotion contains the seaweed extract Laminaria as well as natural seawater minerals for superior nourishment. These also help to activate cell renewal and blood microcirculation in the skin, boosting blood flow and youthfulness. Aloe Vera, Chondrus, and Ulva help to soothe and hydrate so that your skin looks toned and bright.

### How to use

In the morning and evening, pour the lotion onto a cotton wool pad and apply over face and neck with an upward motion.

### Storage

Store in a cool dry place away from direct sunlight.  
Use within 6 months after opening.

### Certification characteristics:

99.04% of the total ingredients are from natural origin.  
20.82% of the total ingredients are from organic farming.  
Natural and Organic Cosmetic certified by Ecocert Greenlife according to Ecocert Standard available at <http://cosmetics.ecocert.com>



<b>Content</b>	200ml
<b>Ingredients</b>	Aqua (Water/Eau), Crithmum Maritimum Extract*, Caprylic/ Capric Triglyceride, Helianthus Annuus (Sunflower) Seed Oil*, Glycerin, Glyceryl Stearate, Aloe Barbadensis Gel (Leaf Juice)*, Sodium Stearoyl Glutamate, Chondrus Crispus (Carrageenan) Extract, Laminaria Digitata Extract, Ulva Lactuca Extract, Benzyl Alcohol, Cocoglycerides, Xanthan Gum, Cetyl Palmitate, Cetearyl Alcohol, Lactic Acid, Tocopherol, Parfum (Fragrance), Sodium Benzoate, Citric Acid, Dehydroacetic Acid, Sodium Phytate, Potassium Sorbate, Linalool, Limonene. 319-I1201 *Ingredient from organic farming Made in France.

2040 Velvet Cleansing Milk

<b>Content</b>	200ml
<b>Ingredients</b>	Aqua (Water/Eau), Crithmum Maritimum Extract*, Aloe Barbadensis Gel (Leaf Juice)*, Glycerin, Sodium PCA, Chondrus Crispus (Carrageenan) Extract, Laminaria Digitata Extract, Ulva Lactuca Extract, Benzyl Alcohol, Xanthan Gum, Sodium Benzoate, Maris Aqua (Sea Water/ Eau de Mer), Citric Acid, Dehydroacetic Acid, Sodium Phytate, Parfum (Fragrance), Potassium Sorbate, Linalool, Limonene. 320-K0105. *Ingredient from organic farming Made in France.

2041 Fresh Tonic Lotion



## Nourishing Face Cream

A blend of natural ingredients to deeply nourish your skin

- Contains shea butter, sunflower seed oil, and trace elements – all natural ingredients
- Hyaluronic acid for hydration
- pH-balanced to protect the skin
- Includes Aloe Vera for soothing and restoring suppleness.

Our Nourishing Face Cream is our key moisturiser, helping to protect and to reduce premature ageing. A combination of shea butter and marine minerals restores your skin's natural layer of protection, nourishing the cells by supplying moisture to the upper layer of the epidermis. By combining these ingredients with hyaluronic acid, the Nourishing Face Cream creates a strong moisture reserve to keep your skin looking fresh throughout the day, whilst leaving it soft and smooth.

### How to use

Apply morning and/or evening with light circular movements on face and neck after using True Elements™ Anti-Ageing Serum.

### Storage

Store in a cool dry place away from direct sunlight.  
Use within 6 months after opening.

### Certification characteristics:

99.13% of the total ingredients are from natural origin.  
25.79% of the total ingredients are from organic farming  
Natural and Organic Cosmetic certified by Ecocert Greenlife according to Ecocert Standard available at <http://cosmetics.ecocert.com>



**Content** 50ml

**Ingredients** Aqua (Water/Eau), Crithmum Maritimum Extract\*, Octyldodecanol, Aloe Barbadensis Gel (Leaf Juice)\*, Glycerin , Dicaprylyl Carbonate, Glyceryl Stearate, Sodium PCA, Caprylic/ Capric Triglyceride, Helianthus Annuus (Sunflower) Seed Oil\*, Hydrogenated Palm Kernel Glycerides, Lauryl Laurate, Cetearyl Alcohol, Butyrospermum Parkii (Shea) Butter Extract, Sodium Stearoyl Glutamate, Microcrystalline Cellulose, Chondrus Crispus (Carrageenan) Extract, Laminaria Digitata Extract, Ulva Lactuca Extract, Benzyl Alcohol, Cetyl Palmitate, Cocoglycerides, Sodium Carrageenan, Xanthan Gum, Lactic Acid, Cellulose Gum, Hydrogenated Palm Glycerides, Sodium Benzoate, Citric Acid, Tocopherol, Parfum (Fragrance), Dehydroacetic Acid, Sodium Hyaluronate, Sodium Phytate, Potassium Sorbate, Linalool, Limonene . 322-2-L0820

\*Ingredient from organic farming

Made in France.

2044 Nourishing Face Cream





## Anti-Ageing Serum

For use after cleansing and toning, but before moisturising with Youthful Face Cream

- Help keep back the years
- Ulva algae stimulates anti-ageing cellular renewal
- Hyaluronic acid plumps the skin and stimulates collagen creation
- pH-balanced to protect the skin
- Overall skin looks and feels firmer

This natural anti-ageing serum contains active ingredients that reinforce the skin, promoting cellular renewal and the creation of elastin fibres that help maintain the skin's natural suppleness. Hyaluronic acid plumps and helps stimulate collagen production to keep skin looking smoother and more youthful.

### How to use

Every morning and evening, after applying the tonic lotion, smooth on a few drops of serum to face and neck in light circular motions. Then apply True Elements™ face cream.

### Storage

Store in a cool dry place away from direct sunlight.  
Use within 6 months after opening.

### Certification characteristics:

99.07% of the total ingredients are from natural origin.  
20.83% of the total ingredients are from organic farming.  
Natural and Organic Cosmetics certified by Ecocert Greenlife according to Ecocert Standard available at <http://cosmetics.ecocert.com>



<b>Content</b>	30ml
<b>Ingredients</b>	Aqua (Water/Eau), Crithmum Maritimum Extract*, Aloe Barbadensis Gel (Leaf Juice)*, Ulva Lactuca Extract, Sodium PCA, Glycerin, Chondrus Crispus (Carrageenan) Extract, Sodium Carrageenan, Laminaria Digitata Extract, Benzyl Alcohol, Sodium Hyaluronate, Xanthan Gum, Sodium Benzoate, Citric Acid, Dehydroacetic Acid, Parfum (Fragrance), Potassium Sorbate, Limonene, Linalool . 359-J1004 *Ingredient from organic farming Made in France.

2042 Anti-Ageing Serum

## Youthful Face Cream

Anti-ageing for more mature skin

- Polysaccharides from red seaweed and Aloe Vera provide moisture
- Crithmum maritimum helps to protect and regenerate skin
- Olus oil and palm kernel-extract nourish the skin
- pH-balanced to protect the skin
- Skin's natural elasticity is enhanced to help you look more youthful

For more mature skin, our Youthful Face Cream offers richer support with an exceptional feel on the skin, strengthening the elastin fibres that support skin tissues, helping to keep them taut and looking firmer. Our combination of plant butters and sea fennel nourish, protect, and help to regenerate cells, whilst polysaccharides from red seaweed and aloe vera keep moisture locked in for healthy, youthful skin.

### How to use

Apply morning and/or evening with light circular movements on face and neck after using True Elements™ Anti-Ageing Serum.

### Storage

Store in a cool dry place away from direct sunlight.  
Use within 6 months after opening.

### Certification characteristics:

99.06% of the total ingredients are from natural origin.  
20.85% of the total ingredients are from organic farming.  
Natural and Organic Cosmetic certified by Ecocert Greenlife according to Ecocert Standard available at <http://cosmetics.ecocert.com>



<b>Content</b>	50ml
<b>Ingredients</b>	Aqua (Water/Eau), Crithmum Maritimum Extract*, Octyldodecanol, Aloe Barbadensis Gel (Leaf Juice)*, Dicaprylyl Carbonate, Caprylic/Capric Triglyceride, Glycerin, Olus Oil (Vegetable Oil/Huile Végétale), Glyceryl Stearate, Hydrogenated Palm Kernel Glycerides, Sodium PCA, Butyrospermum Parkii (Shea) Butter Extract, Lauryl Laurate, Helianthus Annuus (Sunflower) Seed Oil*, Cetearyl Alcohol, Sodium Stearoyl Glutamate, Microcrystalline Cellulose, Chondrus Crispus (Carrageenan) Extract, Laminaria Digitata Extract, Ulva Lactuca Extract, Benzyl Alcohol, Cetyl Palmitate, Cocoglycerides, Sodium Carrageenan, Lactic Acid, Hydrogenated Palm Glycerides, Sodium Hyaluronate, Xanthan Gum, Cellulose Gum, Tocopherol, Guar (Cyamopsis Tetragonoloba) Gum, Parfum (Fragrance), Sodium Benzoate, Citric Acid, Dehydroacetic Acid, Sodium Phytate, Potassium Sorbate, Limonene, Linalool . 360-K0228 *Ingredient from organic farming Made in France.

2043 Youthful Face Cream



## Whole body care

### Stimulating Shower Gel

Energise your skin

- Unique ingredients help to stimulate cell renewal
- Brown seaweeds and marine minerals create a toning, re-mineralising action
- Fucus vesiculosus helps with microcirculation
- Crithmum maritimum stimulates cellular exchanges
- pH-balanced to protect the skin
- Boosts and preserves skin's natural moisture

Ensure you cleanse your skin with our Stimulating Shower Gel. Its natural ingredients help to remove daily pollutants from your body whilst protecting your skin's natural moisture balance. Sea fennel stimulates cell renewal, whilst brown seaweeds and spray-dried seawater minerals tone and re-mineralise for an invigorated feeling.

#### How to use

In the bath or under the shower, apply on the body. Lather and thoroughly rinse off with warm water.

#### Storage

Store in a cool dry place away from direct sunlight.  
Use within 6 months after opening.

#### Certification characteristics:

99.11% of the total ingredients are from natural origin.  
20.79% of the total ingredients are from organic farming.  
Natural and Organic Cosmetic certified by Ecocert Greenlife according to Ecocert Standard available at <http://cosmetics.ecocert.com>

<b>Content</b>	200ml
<b>Ingredients</b>	Ammonium Lauryl Sulfate, Aqua (Water/Eau), Crithmum Maritimum Extract*, Cocamidopropyl Betaine, Decyl Glucoside, Laminaria Digitata Extract, Coco-Glucoside, Glyceryl Oleate, Benzyl Alcohol, Maris Sal (Sea Salt/Sel Marin), Chondrus Crispus (Carrageenan) Extract, Maris Aqua (Sea Water/Eau de Mer), Fucus Vesiculosus Extract, Ulva Lactuca Extract, Parfum (Fragrance), Citric Acid, Sodium Benzoate, Dehydroacetic Acid, Limonene, Citral . 306-K0105
	*Ingredient from organic farming
	Made in France.

2045 Stimulating shower gel



### Moisturising Body Lotion

Nourish your body for skin radiance

- Contains shea butter, seaweed extracts, and palm kernel oil for deeper nourishment
- Laminaria boosts radiance and hydrates
- Ulva algae improve the tonicity of the tissues
- pH-balanced to protect the skin
- Non greasy formula – dress straight away.

Packed full of organic sea plant ingredients and shea butter, our non-greasy formula is easy for the skin to absorb, moisturising and nourishing the upper layers, whilst the ulva algae improves its tone. Our Moisturising Body Lotion boosts radiance, whilst leaving an invisible layer of moisture to keep your skin protected.

#### How to use

After a bath or shower, apply over the entire body.

#### Storage

Store in a cool dry place away from direct sunlight.  
Use within 6 months after opening.

#### Certification characteristics:

98.99% of the total ingredients are from natural origin.  
24.79% of the total ingredients are from organic farming.  
Natural and Organic Cosmetic certified by Ecocert Greenlife according to Ecocert Standard available at <http://cosmetics.ecocert.com>

<b>Content</b>	200ml
<b>Ingredients</b>	Aqua (Water/Eau), Crithmum Maritimum Extract*, Helianthus Annuus (Sunflower) Seed Oil*, Decyl Oleate, Sodium PCA, Caprylic/Capric Triglyceride, Octyldodecanol, Hydrogenated Palm Kernel Glycerides, Glyceryl Stearate, Butyrospermum Parkii (Shea) Butter Extract, Glycerin, Sodium Stearoyl Glutamate, Benzyl Alcohol, Chondrus Crispus (Carrageenan) Extract, Laminaria Digitata Extract, Ulva Lactuca Extract, Microcrystalline Cellulose, Cetearyl Alcohol, Cetyl Palmitate, Cocoglycerides, Hydrogenated Palm Glycerides, Lactic Acid, Xanthan Gum, Parfum (Fragrance), Citric Acid, Sodium Benzoate, Tocopherol, Cellulose Gum, Dehydroacetic Acid, Sodium Phytate, Linalool, Limonene . 312-I1207
	*Ingredient from organic farming
	Made in France.

2046 Moisturising Body Lotion





# Rejuvenate

## The Why

### Rejuvenate

Magnetic energy is an intrinsic part of the body's natural processes and of the natural environment of all living things<sup>1</sup>. A key principle of both Far Eastern cultures and Traditional Chinese Medicine is that of the flows of energies in the body<sup>2</sup>. This principle has led to the development of practices such as acupuncture in the Western world, which is now even valued by the British Medical Association.

The Earth's magnetic field has changed substantially over human history, reversing polarity regularly over geological time, most recently declining approximately 50% from a peak about 3000 years ago<sup>3</sup>. Modern civilisation has also played a part. From the end of the 19th century onwards, we have experienced enormous growth of electrical and electromagnetic fields and radiation, all of which react with the body's natural magnetic fields<sup>3</sup>.

As with most natural experiences, electromagnetic environments affect different people in different ways and to different extents. In Sweden about 3% of the population is acknowledged as suffering from functional impairment known as 'electrohypersensitivity', a physiological condition which is acknowledged by the World Health Organization, as well as the US and Canadian governments<sup>4</sup>.

For the rest of us, we may not be consciously aware of problems but we are still sensitive, if not hypersensitive, and our overall quality of life can still be impaired.

Nikken magnetic technologies have been developed over almost 40 years to provide a carefully designed, supportive environment, and Nikken's magnetic products are designed to help fit easily into our normal day-to-day lives. This can be in the form of our Sleep System or via special magnetic insoles, seats, Kenkopads, or even jewellery which can be used conveniently throughout the day.



# The Science

Electricity and Magnetism are really two manifestations of a single force, the Electromagnetic force which is one of the four fundamental forces of the universe (the others are the strong and weak nuclear and gravity forces). All of the body's processes are mediated by chemical reactions and electrical flows – even the chemical reactions have electrical components. Our brains are the central control centres for the body; representing only 2% of the body's mass, though using 20% of the body's energy, our brain communicates with the rest of our body through electrical signals<sup>5</sup>. For example, we don't really 'see' with our eyes; in reality, we receive electrical signals from our eyes, which are interpreted by our brains into pictures. We don't even feel pain directly; once again, our brains are responsible for interpreting the electrical signals sent by other parts of our bodies.

All life on Earth has evolved within the Earth's own magnetic field, which is as much a part of the environment as the sun, air and water of our planet. The effects of, and sensitivity to, this evolutionary development can be seen in many aspects of nature around us.

Birds, fish, insects, and some mammals use the Earth's magnetic field for navigation during migration, choosing the same routes and stopovers each time they migrate. One study into this identified cells in the nose of trout that respond to natural magnetism, helping them to orient themselves and find their way.<sup>6</sup>

Some of the basic actions of our cells are to send messages backwards and forwards around our bodies, assisting in healthy biological functions. An action potential, also called a cellular exchange, is where a rapid change in a cell membrane occurs when a nerve cell is stimulated. These action potentials help with everything from movement to toxin expulsion from the body, so they're incredibly important to our overall wellbeing. By exposing our bodies to so many varying electromagnetic fields we may inadvertently be affecting these cellular exchanges.<sup>9</sup>

“The human body is under the influence of the earth's magnetic field and maintains a balanced relationship with it. However, under modern day living conditions, the effect of this magnetic field has decreased or altered”<sup>3</sup>

## Static magnets vs. electromagnets

There are two ways to produce a magnetic field – with a static magnet or an electromagnet.

### Static magnets

A static or permanent magnet is a solid material that has intrinsic magnetic qualities. It can be a natural magnet – such as the iron-rich rock known as lodestone – or it can be an iron-containing object (either metal or ceramic) that has been treated to align its internal structure. Refrigerator magnets and horseshoe magnets are simple examples. Static magnets are available in a variety of strengths, and advanced material design can increase the strengths and longevity of the magnets for specific applications.

### Electromagnets

Any conductor which carries electricity will produce both an electrical field and a magnetic field. If the conductor is wound into a coil the magnetic lines of flux will align to produce a stronger magnetic field, which can then be used for magnetic purposes. This ability to turn a magnetic field on and off at will has its advantages, and strong electromagnets are often used in industrial applications such as locks.

### Electromagnetic Fields (EMFs)

However, common health concerns are related to Electromagnetic Fields (also known as Electromagnetic Radiation), which are a fundamental property of electromagnetism. Electromagnetic radiation includes radio waves, microwaves, infrared radiation, visible light, ultraviolet radiation, X-rays and gamma rays (which differ according to the wavelength). It also includes electromagnetic fields caused by the electrical current in a conductor, such as electrical wiring or high-voltage power lines.

The safety of each of these radiations varies according to frequency and is also inversely related to the power, with visible light safest and gamma rays most dangerous. However, while radio frequencies and mobile phones are largely considered to be safe, lower-level sensitivities have been established (as described above) in Sweden, the United States, and Canada.

### Nikken uses only static magnets

All magnetic Nikken products rely solely on static magnets. This applies equally to all Nikken magnetic technologies. No Nikken product uses electricity to induce a magnetic field, and Nikken's magnetic technologies are therefore quite distinct from possible concerns about electromagnetic radiation.

# The Technology

## Nikken's Magnetic Technologies

The key hallmark of Nikken's Magnetic Technologies has been magnetic complexity, which has developed in different forms since Nikken's first designs nearly 40 years ago: Field Gradient Technology, EQL (Equilateral) Technology, Dynamic Magnetic Technology, and Magnetic Tension Technologies which consist of RAM™, SpyderRAM™, and DynaFlux® Magnetic Technology. Each design offers different characteristics and is adapted to the appropriate products.



### Field Gradient Technology

Field Gradient Technology uses bipolar magnets either singly or in a multiple-magnet array. The arrays are precisely spaced to produce a pattern of magnetic flow (flux lines) between the magnets, creating a complex field gradient of magnetic energy utilising multiple polarities and flux.

### EQL magnetic Technology

Equilateral Magnetic Technology uses a patented design that increases the magnetic surface activity through a hexagonal array of equilateral triangles, each an alternating north or south pole magnet. This multiplies the number of positive and negative poles, thus creating more lines of magnetic flux. In turn, this maximises the magnetic and geometric complexity for a static field on a flat surface, so that the positioning of the surface is relevant to the object against which it is positioned and creates a uniform magnetic design from edge to edge.

### Dynamic Magnetic Technology.

A dynamic magnetic field is more complex than a static field and our massage products use this technology to create a deeply penetrating three-dimensional moving magnetic field.

### Magnetic Tension Technologies.

Nikken's latest technical developments are the patented Magnetic Tension Technologies, which start to bring some of the 3-dimensional complexity of the Dynamic Technology into a static form and come in three different configurations:

- **RAM™ (Radial-Axis Magnetism) Technology** modules feature circular clusters of six small magnetic spheres, with each positive-negative axis rotated 60 degrees relative to its neighbour in a stepped alignment that produce a series of overlapping magnetic fields in tension.
- **SpyderRAM™** modules use the same magnetic arrangement but at a larger scale for use in a larger context such as KenkoSeats.
- **DynaFlux® Technology** positions magnetic surfaces with the same polar orientation, either positive or negative, opposite each other at multiple points. Interlocking construction holds these components in place, overcoming the repulsion generated by this arrangement, and specially designed magnets prevent demagnetisation which would otherwise occur. Placing separate magnetic fields in opposition produces a multiplier effect, increasing the magnetic strength and the depth of the field, taking magnetic complexity in a static device almost to dynamic levels.





In addition, we also use three other types of technology in our products:

## TriPhase® Technology

In many cases Nikken's Magnetic Technologies are combined with beneficial Far-Infrared and Negative Ion Technologies (see below). We describe this combination as TriPhase® Technology.



## FIR Technology

Far-Infrared (FIR) is a way of saying 'long wavelength heat' – as such, it is a natural and beneficial part of the Sun's spectrum. There are a number of conventional applications of FIR in the hands of physiotherapists, for example. Nikken's Far-Infrared Technology is an exciting development, bringing the technology to the home environment. Made up of a special passive ceramic that can be impregnated into fibres, it first absorbs broad-spectrum heat then radiates that energy as FIR heat, a gentle, soothing form of heat that also adds to a sense of wellbeing. Thus, the technology can be built into our Naturest® Sleep System, KenkoSeat® King II, KenkoTherm® wraps and our jewellery etc, with the benefits experienced passively and slowly over time – indeed a whole night – without electrical input or devices. This technology offers a number of specific benefits; in particular, it acts as intelligent insulation, helping to create an adaptive sleep environment, and it also helps create a supportive environment for the body's natural processes.

When you are cold your body expends energy to warm itself. Ordinary materials merely dissipate the energy, but products with Far-Infrared Technology contain ceramic-reflective fibres that absorb energy, transform it into gentle warmth, and reflect it back to you.

### Ranges of energy

In the electromagnetic spectrum of energy waves there exists a small extent of energy that can be seen. This is the region of visible light, from red at the bottom (the longest wavelengths) to violet at the top. The colour spectrum is familiar to anyone who has viewed a prism or a rainbow.

The infrared portion of the electromagnetic spectrum is directly below the lowest range of visible light, the colour red ('Infrared' means 'below red'). Far-infrared in turn is at the low end of this portion. Far-infrared waves are found between the shorter wavelength, higher frequency waves of middle infrared and the longer wavelength, lower frequency modulations of microwave energy.

Infrared wavelengths, in micro meters (microns)	
Near-infrared	.75 to 1.4 µm
Short-wavelength infrared	1.4 to 3 µm
Mid-wavelength infrared	3 to 8 µm
Long-wavelength (far) infrared	8 to 15 µm
Extreme far-infrared	15 to 1,000 µm

Infrared energy is known as sensible heat, warmth that can be felt. Because far-infrared waves are at the bottom of this range, the result is very gentle warmth. Nikken Far-Infrared Technology attains its input energy from any available source of heat, including body heat, and the radiated output is in the Far-Infrared band.

### Effects

As the ceramic materials used in Far-Infrared Technology primarily radiate this far-infrared light the gentle warming effect is often not detectible to the senses. A consistent, mild warmth has been shown to be efficacious in helping to relax tensed or strained muscles, tendons and joints.<sup>10</sup>



“The action of the pounding surf creates negative air ions and we also see it immediately after spring thunderstorms when people report lightened moods.”<sup>7</sup>

## Negative Ion Technology

### What are negative ions?

Negative ions are essentially molecules with an overall negative charge. Air which is rich in negative ions tends to be experienced as calming and nourishing, such as near waterfalls, forests or beaches.

Conversely, positive ions are molecules with an overall positive charge. Air that's rich in positive ions can be experienced as being more stressful and is commonly found in urban and industrial environments. Positive ions in the air can also increase during certain meteorological phenomena. An example of this are the so-called 'angry winds' (extremely powerful wind currents), which include the Föhn in Switzerland, the Mistral in France, the Chinook in the Rocky Mountains, the Santa Ana in the southwest USA, etc.

Nikken applies Negative Ion Technology in two ways. First, as a feature of the KenkoAir® Purifier system, using a patented ozone-free process. The second way is as a passive Negative Ion Technology that can be incorporated into fibres, such as the KenkoDream® Quilt, our KenkoTherm® FIR wraps and even Nikken's TriPhase® jewellery.

### What do negative ions do?

Columbia University carried out research on people with 'Winter' and chronic depression. The results of this research showed that negative ion generators can help to relieve depression.<sup>8</sup>

Negative ions can result in higher alertness, decreased drowsiness, and more mental energy. One in three of us can be sensitive to their effects and, if you are one of them, when exposed to negative ions you will feel instantly refreshed.

“You may be one of them if you feel sleepy when you are around an air-conditioner, but feel immediately refreshed and invigorated when you step outside or roll down the car window... air conditioning depletes the atmosphere of negative ions, but an ion generator re-releases the ions that air conditioners remove.”<sup>7</sup>

A few interesting studies related to these technologies are referenced in the appendix on p106.



## Key facts

- The Earth's magnetic field is changing, declining approx. 50% from a peak about 3000 years ago<sup>3</sup>
- There has been enormous growth in electromagnetic fields during the 19th century. This can affect our cellular exchanges<sup>9</sup>
- Electromagnetic environments can cause 'electrohypersensitivity'<sup>4</sup>
- Birds, fish, insects, and some mammals use the Earth's magnetic field to orientate themselves<sup>6</sup>
- Nikken uses only static magnets, eliminating concerns in our products over electromagnetic radiation

All websites accessed on 21st July 2014

1 "Hemoglobin and Magnetism" Prof Linus Pauling, Nobel Laureate 1954 (Chem) <http://osulibrary.oregonstate.edu/specialcollections/coll/pauling/blood/notes/1937s.2.html>  
2 <http://nccam.nih.gov/health/whatiscam/chinesemed.htm>  
3 Dr. Kyoichi Nakagawa, MD, Dir Isuzu Hospital, Tokyo, Japan, "Magnetic Field Deficiency Syndrome", Japan MedJournal, No 2475, 12/4/76  
4 <http://www.scribd.com/doc/3285722/The-Functional-Impairment-Electrohypersensitivity-and-Health-Effects-of-ModernLife-Electromagnetic-Fields>

5 <http://science.education.nih.gov/supplements/nih4/self/guide/info-brain.htm>  
6 [http://www.en.uni-muenchen.de/news/insightmu/2010/02\\_01.pdf](http://www.en.uni-muenchen.de/news/insightmu/2010/02_01.pdf)  
7 <http://www.webmd.com/balance/features/negative-ions-create-positive-vibes>  
8 [http://www.hpa.org.uk/webc/hpawebfile/hpaweb\\_c/1194947415497](http://www.hpa.org.uk/webc/hpawebfile/hpaweb_c/1194947415497)  
9 [http://www.migunofgreenville.com/pdf/Research\\_on\\_Far\\_Infrared\\_Rays\\_by\\_Dr\\_Aaron\\_M\\_Flickstein.pdf](http://www.migunofgreenville.com/pdf/Research_on_Far_Infrared_Rays_by_Dr_Aaron_M_Flickstein.pdf)



## Kenkolsoles®

### Our original Magnetic Technology

- EQL Magnetic Technology – perfectly consistent magnetic field formed of equilateral triangles, with multiple polarities – 100% surface coverage with no gaps
- Design has optional reflexological nodules on one side – provides a massage effect that helps the whole body feel good
- Reinforcing mesh layers, wear-resistant coating – adds durability and long life
- Low-profile design – comfortable inside shoes
- Three trim-to-fit sizes for a custom fit – sizes to fit men, women and children
- For both dress and casual shoes

#### Our origins

The Kenkolsoles® are Nikken's founding product. Derived from research into the effects of magnetic fields, they have a massage component inspired by the reflexology practices in Japan and the pebbles on the floors of the traditional hot baths.

#### Innovative technology

The Kenkolsoles® utilise Nikken's EQL Magnetic Technology, which means that the whole insole generates a complex multipolar magnetic array from edge to edge for 100% coverage.

#### Durable construction

Our Kenkolsoles® are built to last, featuring a triple-layer design and a durable resin-coated surface that stands up to daily use and means they're easy to keep clean.

To feel the benefits of the Kenkolsoles®, simply cut them carefully to size, slip them in your shoes and you're ready to go.

#### How to use

Trim to fit if necessary. Insert into shoes.

#### Care instructions

Surface clean with a damp cloth moistened with a mild detergent. Air dry.

#### PLEASE NOTE

Measure your feet and shoes before cutting the insoles to get the best fit. Do not cut the insoles according to the sizing lines marked on them.

Size markings on insoles are US/EU/Asian conversions and are approximate guidelines only.



<b>Technology</b>	EQL Magnetic Technology
<b>Magnet strength</b>	450 Gauss
<b>Materials</b>	Magnetic, heat-resistant nylon
<b>Weight</b>	0.40-0.85 lb/181-386g.

<b>Available in sizes:</b>	
2020	Small (women's 2-6.5 UK/ 35-40 EU)
2021	Medium (men's 6-11 UK/ 39-46 EU)
2022	Large (men's 12+ UK/ 47+ EU)

## mStrides

### New, improved design, featuring our most advanced DynaFlux® Technology

- Exclusive 800-1000 gauss Dynaflux® magnetic tension technology
- Durable, lightweight, and ventilated materials
- Negative Ion Technology
- Far-Infrared Technology

Beginning in 1975 with our Kenkolsoles®, the Nikken mStrides are our latest innovation. They combine the most advanced DynaFlux® Magnetic Technology to increase field complexity through opposing polarities. DynaFlux® technology also introduces a degree of dynamic field variability by allowing each magnet a precisely controlled degree of movement as you take each step.

Far-Infrared technology absorbs energy from the environment and reflects it back as gentle, calming warmth. Passive Negative Ion Technology releases soothing negative ions to create the ultimate re-energising environment for tired feet.

#### How to use

Trim to fit if necessary. Place foot on insole to mark cutting area. Size on insole is for guidance only and may not be suitable for your size of shoe.

#### Caution

Size markings on insoles are US/EU/Asian conversions and are approximate guidelines only.

#### Care instructions

Surface clean with a damp cloth moistened with a mild detergent. Air dry.

#### PLEASE NOTE

Measure your feet and shoes before cutting the insoles to get the best fit. Do not cut the insoles according to the sizing lines marked on them.



<b>Technology</b>	DynaFlux® Magnetic, Far-Infrared, Negative Ion Technologies
<b>Magnet strength</b>	800-1000 Gauss
<b>Materials</b>	Ferrite magnets, temperature polyurethane, Negative Ion Technology, Far-Infrared ceramics.

<b>Available in sizes:</b>	
3050	Women's (UK 2.5 to 7 / EU 35 to 40)
3051	Men's (UK 6.5 to 11.5 / EU 40 to 46.5)





## KenkoStrides®

All the benefits of our KenkoInsoles®, but for more intensive activities

- EQL Magnetic Technology – perfectly consistent magnetic field formed of equilateral triangles, with multiple polarities providing 100% magnetic coverage
- Far-Infrared Technology
- Soft, resilient, high-density foam for superior shock absorption
- Flexible, lightweight for active wear
- Ventilated triple-layer construction

Delivering the same benefits as our founding product the KenkoInsoles®, the KenkoStrides® are triple-layer insoles that provide extra cushioning, ventilation, and temperature control for even the most active of feet. Odour resistant, they're perfect for more intensive activities and offer superior shock absorption with their base of open cell, high-density foam.

EQL Magnetic Technology gives consistent magnetic coverage across the entire surface of the KenkoStrides®, whilst Far-Infrared fibres help to regulate and balance temperature by reflecting heat energy back as gentle warmth, keeping you on the move all day long.

### How to use

Trim to fit if necessary. Insert into shoes.

### Care instructions

Surface clean with a damp cloth moistened with a mild detergent. Air dry.

### PLEASE NOTE

Measure your feet and shoes before cutting the insoles to get the best fit. Do not cut the insoles according to the sizing lines marked on them.

Size markings on insoles are US/EU/Asian conversions and are approximate guidelines only.



<b>Technology</b>	EQL Magnetic, Far-Infrared Technologies
<b>Magnet strength</b>	450 Gauss
<b>Materials</b>	Simulated vinyl leather, urethane foam, magnetised iron ferrite embedded into neoprene with cotton fabric reinforcing mesh.
<b>Weight</b>	0.40-0.85lb/181-386g.

### Available in sizes:

<b>2024</b>	Small (women's size 2-6.5 UK / 35-40 EU)
<b>2025</b>	Medium (men's size 6-11 UK / 39-46 EU)
<b>2026</b>	Large (men's size 12+ UK / 47+ EU)

## PowerChip®

Versatile, portable, magnetic energy

- Unique DynaFlux® Magnetic Technology provides 100% coverage
- Incorporates Far-Infrared Technology and Negative Ion Technology
- Compact size, fits in pocket or purse
- Durable, long-lasting construction with a polymer shell that resists corrosion

Featuring Nikken's most advanced DynaFlux® Magnetic Technology, the Powerchip® utilises the complexity of magnetic fields in tension which increases depth of field for greater penetration. The PowerChip® also incorporates our Far-Infrared Technology and Negative Ion Technology. Wear the PowerChip as a pendant by using the ring provided in the design, or use it in conjunction with our support wraps for more focused energy.

### How to use:

Use with KenkoTherm® Support Wraps – place one PowerChip® either side of the affected limb underneath the wrap. Use the hoop on the bezel to attach to a necklace of your choice to create a magnetics pendant.

### Care Instructions

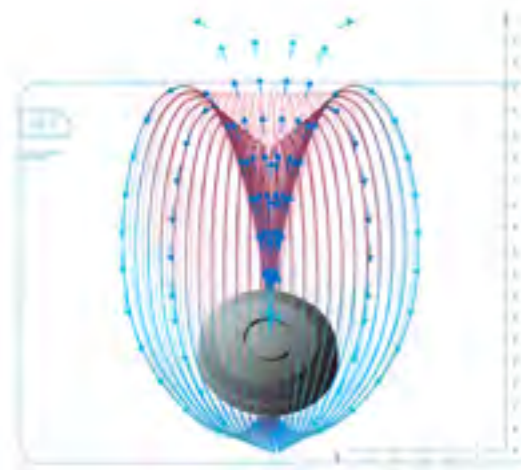
May be cleaned with a damp, soft cloth.



<b>Technology</b>	DynaFlux® Magnetic, Far-Infrared, Negative-Ion
<b>Dimensions</b>	Diameter 4cm
<b>Pack of three</b>	(black, green, and red)
<b>Magnet strength</b>	900-1000 Gauss
<b>Materials</b>	Magnetised ceramic, ferrite, polymer.

**1510** PowerChip®





## PowerMini™

Instant magnetic energy on the go

- Exclusive 750 gauss Dynaflux® Magnetic Technology
- Convenient carry case holds a full supply of 12 PowerMini™ magnetic units and adhesive discs
- Both the magnetic assemblies and adhesive discs are water resistant
- Non-irritating smooth finish and medical-grade adhesive

With the new PowerMini™, the smallest of Nikken's Magnetic Technologies, you can apply the magnetic devices almost anywhere on your skin to assist in relieving discomfort in the least convenient areas. Using the patches stored in the unique carry case, all you need to do is adhere the device to the area to experience advanced Dynaflux® energy.

As well as being small enough to carry around in your bag or wallet, the PowerMini™ patch is waterproof and the magnetic assemblies are re-usable without deterioration.

### How to use:

Open case carefully (contains small objects) and detach a PowerMini™ magnet by pressing a finger against the underside of the case. Remove backing from adhesive disc and attach to flat side of the PowerMini™ magnet. Place the PowerMini™ magnet against the skin. May be worn for periods of up to 3 days, see complete instructions for use included with the product.

<b>Technology</b>	DynaFlux® magnetic technology
<b>Dimensions</b>	12 x 1cm diameter magnets, 24 x 2.5cm adhesive disc
<b>Magnet strength</b>	750 Gauss
<b>Materials</b>	Strontium ferrite magnet, adhesive-surfaced fabric discs.

3025 PowerMini™

## Kenko MagDuo®

Convenient Magnetic Technology  
Relieve muscle tension

Exclusive DynaFlux® Magnetic Technology so the flux lines penetrate deeper

Incorporates Negative-Ion and Far-Infrared Technologies

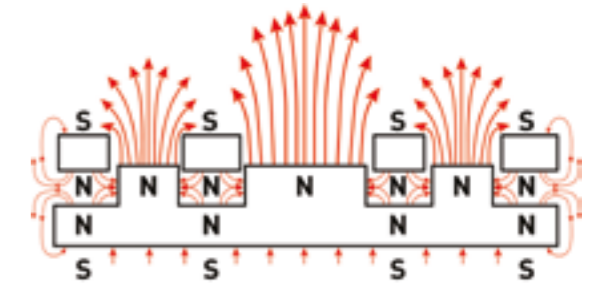
Massage nodules provide a relaxing, stimulating massage

Compact and lightweight, it can be applied to any part of your body

Wallet size – can be carried and used anywhere

Carry case allows rotation of MagDuo spheres for a rolling massage

Durable, high-impact components – designed for a long life



The Kenko MagDuo® is made up of two rotating spheres, featuring unique DynaFlux® massage-nodules, housed in a protective carry case. The Kenko MagDuo® is probably the most powerful and fastest-acting of Nikken's magnetic devices, helping to relax muscular tensions, discomfort and stress. The spheres can also be removed from the case and used individually or together for targeted relief.

The Dynaflux® technology further intensifies and extends the magnetic coverage, whilst the spheres also release Negative Ions. Far-Infrared ceramics release absorbed energy as a comforting heat.

Containing six magnets in total, while two of these are fixed static magnets, four are DynaFlux® magnets that change their flux distribution every time they are pressed against a surface. When the Kenko MagDuo® is in operation, it sends out static and dynamic flux energy in a myriad of directions, instead of just one.

<b>Technology</b>	Dynaflux® Technology, Far-Infrared Technology, Negative Ion Technology
<b>Weight</b>	106g
<b>Magnet Strength</b>	6 x 800 – 1000 Gauss magnets
<b>Materials</b>	Solid magnets, polyresin.

3020 Kenko MagDuo®

### How to use

Roll over sore or stressed parts of the body (neck, back, hands, wrist, etc). The Kenko MagDuo® spheres should be set into the carry case making sure that the black ring nodule is placed on the support bar of the grey plastic. This will enable all DynaFlux® moving nodules to penetrate the skin when using the product. To remove the spheres from the casing, unclip the blue centre plastic.

### Care instructions

Do not immerse in water. Clean with a damp cloth.





## MagCreator®

An insight into the relaxation provided by the Nikken Naturest® Sleep System

- Specially designed magnetic head designed to roll fluidly down the spine and soothe tired, tense muscles
- The surface nodules add an extra level of massaging stimulation.
- Premium bearings ensure a smooth focused experience
- Comfort-grip, non-slip handles ensure stability while performing a Rollout with the MagCreator®

The relaxing magnetic back massage that you get from using our popular MagCreator® is like nothing you will have experienced before. Try it for yourself! It's so easy to use, either on yourself or even better on others. The stimulating effect of the light rolling action as the carefully engineered components gently sweep down your spine will leave you feeling fresh and invigorated.

The special Nikken 'Roll-Out' procedure can even give you an insight into the relaxation available through sleeping each night using the Nikken Naturest® Sleep System.

### How to use

Simply hold the handles one in each hand and roll gently up and down the spine. To use on yourself, hold one of the handles and roll the magnetic components over the affected area.

### Care instructions

To clean, wipe with damp cloth. Do not immerse in water.



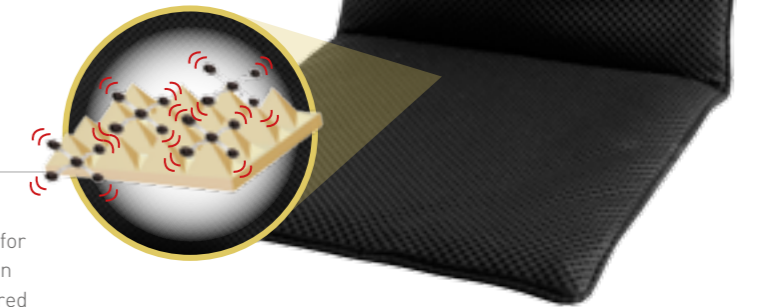
<b>Technology</b>	Dynamic Magnetic Technology
<b>Weight</b>	1290g
<b>Magnet Strength</b>	800 Gauss
<b>Materials</b>	Stainless steel, solid magnets, polyresin.

1330 MagCreator®

## KenkoSeat® King II

Experience powerful magnetic energy whilst sitting down

- Exclusive SpyderRAM™ Magnetic Technology
- Incorporates TriPhase® technology
- High density massage nodules for superior support and comfort
- Latex foundation for hypoallergenic, ventilated comfort
- Durable and breathable outer cover
- Suitable for use at home, work or whilst travelling
- Elastic straps for stability



Ideal for the office or at home, the KenkoSeat® King II is an instant way for you to benefit from our Magnetic Technologies. Following similar design principles to the Naturest® Kenkopad®, the KenkoSeat® has been covered using a soft, durable, and breathable polyester. The filling is made of naturally anti-bacterial latex.

The KenkoSeat® features our powerful SpyderRAM™ Magnetics, Far-Infrared, and Negative Ion Technologies. There are also high density nodules built-in to the design to provide a massage-like effect – the same technology found in our Sleep System.

The SpyderRAM™ magnetics design places a series of larger spherical magnets in a flexible, web-like matrix. As in the initial RAM™ design, the stationary magnetic spheres are set in a progressive axial rotation to create overlapped or staggered magnetic fields. Each SpyderRAM™ magnet receptacle includes an internal projection that fits into a corresponding cavity in the magnet, locking it into place at the precise angle. The spheres are placed in a structure of medical grade silicone that is extremely flexible, allowing each circular magnetic node to shift slightly in response to body movement.

### How to use:

The KenkoSeat® King II has three elastic straps. The straps on the back of the KenkoSeat® King II hook over the back of your chair, while the two straps on the seat pad of the KenkoSeat® King II unhook to be placed underneath your chair and secured.

### Care Instruction:

The KenkoSeat King II cover is spot clean only. Do not bleach, tumble dry, iron or dry clean.



<b>Technology</b>	SpyderRAM™ Magnetics, Far-Infrared and Negative Ion Technology
<b>Dimensions</b>	H 105cm, W 47cm
<b>Magnet strength</b>	800 – 1000 Gauss
<b>Materials</b>	Natural Latex: 34%, Synthetic Latex: 40%, Graphite: 26%, Polyester: 100%.

3041 KenkoSeat® King II



## Kenko MagFlex®

### Advanced DynaFlux® Magnetic Technology for your back

- TriPhase® Technology
- Made of a durable yet highly flexible material.
- Perforated for ventilation making it comfortable to wear sitting or standing, all day.
- Consistent, 100% active magnetic field over the entire surface
- Resilient yet flexible construction allows freedom of movement

Our most advanced natural Technologies in a format specially designed for use on larger areas of the body, such as your back. Whether sitting or standing, the Kenko MagFlex® is lightweight, slim, and flexible, and fits perfectly to the shape of your lower back. Using a combination of Far-Infrared and Negative Ion Technologies, the Kenko MagFlex® helps to ease discomfort.

The DynaFlux® Magnets provide a consistent, dynamic field over the entire surface of the Kenko MagFlex® to create a deeper, more beneficial, effect of these natural energies. Additionally, it actually utilises the movement of the surface it's applied against. This movement causes the opposing magnets to slightly shift position relative to each other, resulting in the polar shifts that create a dynamic, three-dimensional energy field.

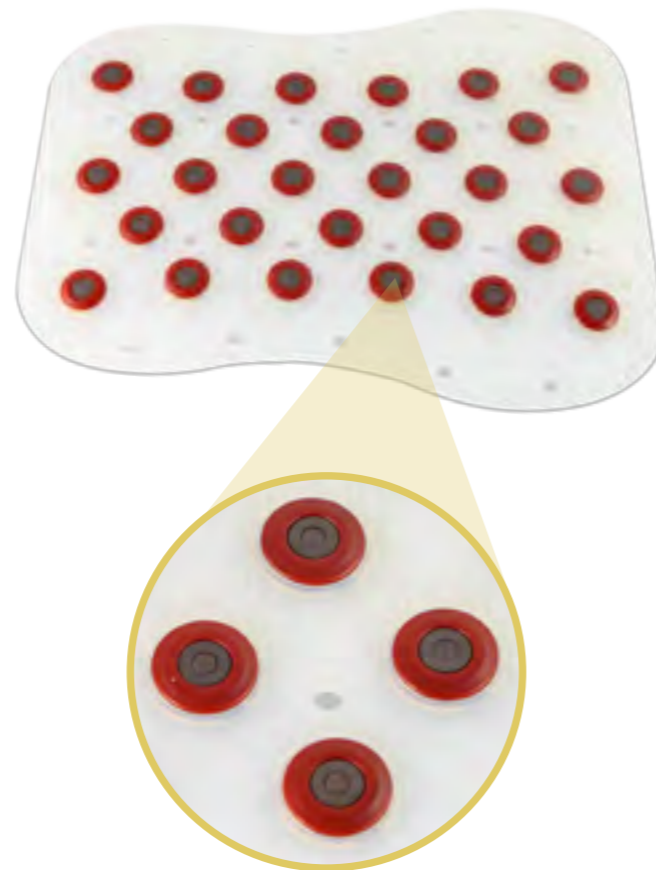
The design is also perforated for ventilation, keeping you comfortable all day long, and serated on the back to hold it in a waistband.

#### How to use

Insert inside waistband at lower back, or place in pocket in KenkoTherm Back Belt. The Kenko Magflex does not have a back and front, so can be worn either way round. For comfort and an optimum massage effect, you may choose to wear this item with the slightly ribbed surface away from your body.

#### Care instructions

Surface clean with a damp cloth moistened with a mild detergent or hand wash in warm water with a mild detergent. Air dry.



<b>Technology</b>	DynaFlux® Magnetic, Far Infrared, Negative Ion Technologies
<b>Dimensions</b>	18.86cm x 14.45cm
<b>Magnet strength</b>	600-800 Gauss
<b>Materials</b>	Ferrite magnets, silicon rubber, 90% low-density polyethylene, 10% high-density polyethylene.

**3010** Kenko MagFlex®

## KenkoTherm® Back Belt

### Warmth and support for your back

- Designed to conform to the shape of your back
- Combines Nikken Far-Infrared and Negative Ion Technologies
- Provides the correct combination of support and flexibility
- Hand washable
- Highly adjustable large Velcro panel



The KenkoTherm® Back Belt provides a contoured fit, ensuring you receive the gentle warmth and natural feeling of the incorporated technologies wherever you need them most. With secure, adjustable closures, it provides just the right level of support and flexibility for your back.

Used alone or in conjunction with the MagFlex®, Nikken's exclusive natural technologies can help you to feel more comfortable..

#### How to use

Wrap around lower back and adjust the strap, ensuring you don't pull it too tight. Secure with Velcro fastenings. You can use the KenkoTherm® Back Wrap daily as needed or until excessive warmth is felt.

#### Care instructions

Machine washable. Allow to air dry. Do not use bleach.

<b>Technology</b>	Far-Infrared and Negative Ion Technology
<b>Materials</b>	Polyurethane, Polyester, Nylon, Ceramic Fibres, Vinyl Chloride.

#### Available in sizes:

<b>1822</b>	Medium – W 17cm, L 94cm
<b>1832</b>	Large – W 17cm, L 105cm
<b>1842</b>	X-Large – W 17cm, L 113cm

## Kenko MagFlex® and KenkoTherm® Back Belt Pack:

Although the KenkoTherm® back wrap can be used alone, the beneficial properties can be further enhanced when used in conjunction with our Kenko MagFlex®.

#### Available in sizes:

<b>3011</b>	Kenko MagFlex® / KenkoTherm® Back Belt Pack (M)
<b>3012</b>	Kenko MagFlex® / KenkoTherm® Back Belt Pack (L)
<b>3013</b>	Kenko MagFlex® / KenkoTherm® Back Belt Pack (XL)





## Nikken Belt

Classic leather belt incorporating Magnetic Technology

- High quality leather belt with refined and elegant buckle
- Incorporates energising Magnetic Technology
- 1000 Gauss magnets

The Nikken belt is the essence of our philosophy – a smart black leather belt incorporating powerful Magnetic Technology so you can feel the benefits wherever you go.

Featuring seven specially designed and strategically placed magnets, the Nikken belt can be conveniently and discretely worn throughout the day to complement both smart and casual wear.



<b>Technology</b>	Field Gradient Magnetic Technology
<b>Sizes</b>	Large (one size)
<b>Magnet strength</b>	1000 Gauss
<b>Materials</b>	Leather, Brass, Neodymium magnets.

1489 Nikken Belt - Large



## PetPad

The same advanced technologies for your pet

- Includes advanced Magnetic Technology that features specially placed magnets
- Incorporates Far-Infrared technology
- Fully washable design
- Doesn't affect microchips

A Nikken Petpad has two primary applications. First, to give our pets the same care and benefits which are available to us. Secondly, to reclaim our own Nikken environments when our pets are drawn by instinct to ours!

The ultimate in sleep, comfort, and relaxation technologies for your pet, the Nikken PetPad helps keep your beloved pet in peak condition. Machine washable for your convenience, it incorporates Magnetic and Far-Infrared Technologies, creating a field of natural energy around your pet. It also reflects back gentle warmth to help keep them energised and active.

### How to use

Place in your pet's normal sleeping environment, green velour side facing up.

### Care instructions

Machine washable 30 degrees. Air dry only. Do not bleach.

<b>Technology</b>	Far-Infrared Technology
<b>Magnet strength</b>	800 Gauss
<b>Materials</b>	Inner Filling: Rubberthane 100%. Inner Cover: Nylon 100%. Bottom Outer Cover: Cotton 75%, Polyester 25%. Top Outer Cover: Acrylic Cloth 100%.

### Available in sizes:

- 1625 PetPad 75 x 60 cm
- 1626 PetPad 100 x 76 cm



## KenkoTherm® Support Wraps

Warmth and support where you need it most

- A range of support wraps designed for specific areas and joints
- Combines Nikken Far-Infrared and Negative Ion Technologies
- Provides the correct combination of support and flexibility
- Hand washable
- Machine washable

KenkoTherm® wraps provide a contoured fit, ensuring you receive the gentle warmth and natural feeling of the incorporated technologies wherever you need them most. Designed for the back, joints, and limbs, the KenkoTherm® Wraps assist in balancing the body, especially in supporting sports and athletic applications. They also help to ease complaining joints from previous injuries and other such problems, or maturing years.

To feel the benefits of our Magnetic Technologies, add PowerChips (p89) or PowerMinis (p90) under the wrap to either side of the limb. You can also use a Kenko MagFlex® with our KenkoTherm® Back Belt (also available as a discounted pack – see p95).

### How to use

Pull the elasticated wrap over the required limb.

### Care instructions

Machine washable. Allow to air dry. Do not use bleach.



### Technology

Far-Infrared and Negative Ion Technology

### Materials

Polyester Fiber, Cotton, Acrylic, Polyurethane, Ceramic Fibres.

### Available in sizes:

#### Ankle Wrap

1821 Medium – W 9cm, L 23cm

1831 Large – W 10cm, L 23cm

1841 X-Large – W 11cm, L 23cm

#### Wrist Wrap

1825 Medium – W 7cm, L 11cm

1835 Large – W 9cm, L 11cm

1845 X-Large – W 9.5cm, L 13cm

#### Elbow Wrap

1823 Medium – W 8.5cm, L 23cm

1833 Large – W 10cm, L 23cm

1843 X-Large – W 12.5cm, L 23cm

#### Knee Wrap

1824 Medium – W 13cm, L 24cm

1834 Large – W 16cm, L 24cm

1844 X-Large – W 18cm, L 27cm

## ThermoWear Socks

Far-Infrared to treat your feet

- Designs for everyday, general sports, and playing golf
- Includes Nikken's Far-Infrared Technology
- Durable and breathable
- Machine washable

### ThermoWear men's and women's socks

Smart black socks to suit any outfit, they combine Nikken's Far-Infrared ceramic fibre technology, helping to keep your feet at a constant, comfortable temperature. Exceptional breathability results in a fresh, dry feeling all day long.

### Care instructions:

Machine wash or hand wash, medium dryer setting or air dry. Do not bleach.



### Technology

Far-Infrared Technology

### Mens

**Materials:** Cotton 68.1%, Nylon 26%, Acrylic with Metallic Copper Coating 2.4%, Elastodiene 2.1%, Elastane 1.4%.

### Womens

**Materials:** Nylon 94%, Elastane 4%, Acrylic 2%.

### ThermoWear Men's sock sizes available:

1716 Medium (size 6.5-11 UK/ 40-46 EU)

1721 Large (size 12-17 UK/ 47-53 EU)

### ThermoWear Men's sock sizes available:

1764 One size

### ThermoWear® Sports Socks

Designed to keep your feet comfortable whilst you keep playing your favourite sports. With a fully cushioned foot bed and built in arch support, these are ideal socks for comfort, and a specially constructed heel features a Y-shaped configuration to minimise slippage. Improved ventilation and breathability properties mean that the fabric fibres help to move moisture away from your skin, preventing your feet from becoming damp during exercise. This feature is further enhanced by the balancing Far-Infrared Technology that helps to moderate temperature.

### Care instructions:

Machine wash or hand wash, medium dryer setting or air dry. Do not bleach.



### Technology

Far-Infrared Technology

### Mens

**Materials:** Cotton: 68%, Acrylic 11.8% (including 5% Acrylic with Metallic Copper), Nylon 8.4%, Polyester 8.2%, Lycra Spandex 2.2%, Rubber 1.4%.

### Available in sizes:

1767 Unisex medium (size 4-8 UK/ 37-42 EU)

1768 Unisex large (size 9-13 UK/ 43-48 EU)

### ThermoWear® Golf Socks

Keep your feet breathing freely while out on the course. Our specially designed ThermoWear Golf Socks combine a high-quality cotton blend with temperature balancing anti-fungal Far-Infrared fibres to provide comfort and durability, and integrated copper fibres prevent static cling.

### Care instructions:

Machine wash or hand wash, medium dryer setting or air dry. Do not bleach.



### Technology

Far-Infrared Technology

### Mens

**Materials:** Cotton, Acrylic including copper, nylon, polyester, lycra, rubber.

### Available in sizes:

1761 One size



## Nikken Jewellery

Look wonderful and feel wonderful with Nikken's range of captivating jewellery – how better to carry the power of Nikken's powerful energy technologies throughout the day than with smart, stylish, unique, energising jewellery as part of your daily life!



## Nikken Watch

Sophisticated timekeeping: time for family, time to work, time to play.

- Contains exclusive TriPhase® Technology
- Beautiful rose-gold plated dial and date counter

A dark black, soft silicone strap and wonderfully contrasting rose-gold plated dial make this watch a wonderful timepiece for both day and night. Not only does it keep time perfectly, but there is also a date counter set into the face. Available in two different sizes, this glamorous watch also features Nikken's TriPhase® technology, helping to keep your natural energies in sync. With such practical sophistication, you'll never want to take it off.

### Care instructions

Do not immerse the watches in water. Wipe clean with a damp cloth and air-dry.

<b>Technology</b>	Far-Infrared, Negative Ion and Field Gradient Magnetic Technologies.
<b>Magnet strength</b>	800 Gauss
<b>Materials</b>	Silicone strap infused with Far Infrared and Negative Ion materials. Stainless steel face
with	rose gold plating. Stainless steel clasp with
rose	gold plating. Clasps also contain four
magnets.	
<b>Battery type</b>	SR626SW
<b>Movement</b>	Japan 2115
<b>Available in sizes</b>	Womens' – 32mm diameter face
19365	Mens' – 42mm diameter face
Women's Nikken Watch	
19366	
Mens' Nikken Watch	

## Synergy Bracelets

The Synergy Range: Three styles to choose from

- Available in three trend-led designs
- Contains Nikken's TriPhase® Technology

The definition of synergy: The interaction or cooperation of two or more components to produce a combined effect greater than the sum of their individual effects. This meaning reflects not only the experience of wearing our new bracelets – that it works in harmony with you – but also reminds us of the Nikken family as a whole.

Three beautiful designs with contemporary stainless steel centerpieces mean you'll be spoiled for choice. The ladies' version has a colourful mosaic design, while the mens' version has a classic edge that suits both casual and work wear. For an extra special touch, the unisex bracelet design has five bands engraved into the stainless steel, each representative of Nikken's Five Pillars of Health, so you'll have a subtle reminder of your commitment to improving your wellbeing. In addition, our Synergy bracelets provide you with the benefits of Magnetic, Far-Infrared energy and Negative Ions, as they contain Nikken's TriPhase® Technology.

### Care instructions

Do not immerse the bracelets in water. Wipe clean with a damp cloth and air-dry.



<b>Technology</b>	Far-Infrared, Negative Ion and Field Gradient Magnetic Technologies
<b>Available in sizes</b>	Womens' 21cm Mens' 21cm Unisex 21cm
<b>Magnet strength</b>	1000 Gauss
<b>Materials</b>	Silicone strap infused with Far Infrared and Negative Ion materials. Stainless steel
centre	and clasp contain two magnets each.
19380	Women's Synergy Bracelet
19381	Mens' Synergy Bracelet





## Kalkei Watch

- 4x 10mm plus 2x 8mm 600 gauss magnetic Hematite beads
- 4x crystal toned- Amerial clay beads infused with negative ions and far-infrared
- Splash resistant watch casing with crystal front surround

The Hematite beads in the Kalkei watch each register 600 gauss strength, while the crystal toned Amerial clay beads are infused with both Negative Ions and Far-Infrared ceramics. The Negative Ions replicate the calming environment found in forest air and near waterfalls, and the infused Far-Infrared ceramics create a gentle warmth by absorbing heat energy and reflecting it back. Working together with the magnetic energies, the three technologies synergistically produce a truly remarkable soothing effect. The perfect mix of fashion, functionality, and energetic support, the Kalkei watch is also presented in its own velvet pouch.

### How to use

Splash proof. Not suitable for swimming.

### Care instructions

When first purchased, a red tag protects the battery. This will need to be removed to start the battery working.

<b>Technology</b>	Far-Infrared, Negative Ion and Field Gradient Magnetic Technologies
<b>Magnet strength</b>	600 Gauss
<b>Materials</b>	Hematite magnetic beads, ceramics
<b>Battery type</b>	SR626SW
<b>Available in one size</b>	19-28cm

19310 Kalkei Watch

## Kalkei Bracelets

- Powerful, 600 gauss magnets replicate the Earth's magnetic energies
- A choice of Magnetic or TriPhase versions

The hematite beads in the Magnetic Kalkei bracelet each contain a 600 Gauss strength magnet, and the TriPhase bracelet also has five crystal-studded beads of Amerial clay infused with Negative Ions and Far-Infrared ceramics. As well as replicating the calming, negative-ion rich environment found in forests and near waterfalls, energy in the far-infrared range is first absorbed and then gradually released to provide gentle warming. Working in combination with the magnetic energies, these advanced, innovative technologies create a reassuring, soothing effect. The glamorous and sophisticated Kalkei bracelets each come in their own velvet pouch, making them the perfect gifts of wellbeing.



<b>Technology</b>	Field Gradient Magnetic Technology
<b>Available in sizes</b>	One size - 19-28cm
<b>Magnet strength</b>	600 Gauss
<b>Materials</b>	Hematite, a mineral form of iron mixed with ferrite.

19301 Black Magnetic bracelet



<b>Technology</b>	Far-Infrared, Negative Ion and Field Gradient Magnetic Technologies
<b>Available in sizes</b>	One size - 19-28cm
<b>Magnet strength</b>	600 Gauss
<b>Materials</b>	Hematite, a mineral form of iron mixed with ferrite, dacron thread, and amerial clay.

19300 Kalkei TriPhase® - Clear

19306 Kalkei TriPhase® - Light Siam

19307 Kalkei TriPhase® - Rose

19305 Kalkei TriPhase® - Light Sapphire



## Five Pillars Magnetic Jewellery

These unisex designs are inscribed with Nikken's core Five Pillars philosophy in Japanese Kanji characters - Mind, Body, Family, Society, and Finances.



### Five Pillars Necklace

- Magnets replicate the Earth's magnetic field
- Helps to restore energy balance

A woven leather necklace with five engraved stainless steel charms featuring TriPhase Technology.

<b>Technology</b>	Far-Infrared, Negative Ion and Field Gradient Magnetic Technologies
<b>Available in sizes</b>	50cm (non-adjustable)
<b>Magnet strength</b>	1000 Gauss
<b>Materials</b>	Black woven-leather rope. Japanese Surgical Steel 316L. Black lacquer. Rubber rings to hold pendants in place.

19100 Five Pillars Necklace

### Five Pillars Silicone Bracelet

- Contains five powerful neodymium magnets
- Unique contemporary design

With a contemporary, energising silicone strap and stainless steel panel inscribed with the characters for the Five Pillars of Health, the Five Pillars Bracelet is reminiscent of many designer silicone wristband watches.

#### Care instructions

Do not immerse the bracelet in water. Wipe clean with a damp cloth and air-dry.

<b>Technology</b>	Far-Infrared, Negative Ion and Field Gradient Magnetic Technologies
<b>Available in sizes</b>	18.5 - 22.5cm
<b>Magnet strength</b>	1000 Gauss
<b>Materials</b>	Silicone strap infused with Far-Infrared and Negative Ion materials. Stainless Steel middle section.

19106 Five Pillars Silicone Bracelet Red

19105 Five Pillars Silicone Bracelet Black







## PowerBand® Bracelet and Necklace

- Hard-wearing
- Suitable for active use

A unisex design suitable for both smart and active/sporting use, the Powerbands have an energising silicone core in a breathable nylon sleeve for comfort.

The unique clasp on our PowerBand® design allows you to connect multiple bands together to increase the length of your necklace or wristband.

### Care instructions:

Wash gently with warm water and mild detergent.

<b>Technology</b>	Far-Infrared, Negative Ion and Field Gradient Magnetic Technologies
<b>Magnet strength</b>	3 x 800 Gauss
<b>Materials</b>	100% Nylon outer cover with a silicon rubber inner. Inside the silicon is a mix of 50% Tourmaline and 50% Ceramic powder. The 3 magnets are made from strontium ferrite polymides. The clasp is made from stainless steel.
<b>Available in sizes:</b>	
5215	PowerBand® Bracelet 19cm
5216	PowerBand® Bracelet 22cm
5217	PowerBand® Necklace 50cm

## Crossover Titanium Bracelet

- Made from Japanese titanium
- Contains Triphase® Technology

This functional and elegant bracelet is made of Japanese titanium and is perfect for both men, women, and for all occasions: formal wear, business environments, and everyday use.

### Care Instructions:

Do not immerse in water. If wet, dry with a clean, soft cloth. Clean with a damp cloth, using a mild detergent if necessary. Avoid contact with any solution containing: acid, alcohol, or solvents, such as perfume, hairspray, nail polish, etc.



<b>Technology</b>	Far-Infrared, Negative Ion and Field Gradient Magnetic Technologies
<b>Available in sizes</b>	20.5cm
<b>Materials</b>	100% High-Quality Japanese Titanium.
19086	Classic crossover titanium bracelet



## Kirei® Pendants

- Silver and gold plated stainless steel pendants
- Inscribed with Kanji characters

Elegantly designed stainless steel and gold-plated stainless steel pendants, they are inscribed with Japanese Kanji symbols which read 'Nihon Kenko' (Japanese health), reminding us of Nikken's origins in Japan. These unisex pendants are designed for use with any necklace and particularly our own magnetic necklaces. Presented in fine jewellery boxes, they're perfect for personal use or to give the gift of wellbeing.

### Care instructions:

Do not immerse in water. If wet, dry with a clean, soft cloth. Clean with a damp cloth, using a mild detergent if necessary. Avoid contact with any solution containing: acid, alcohol, or solvents, such as perfume, hairspray, nail polish, etc.

<b>Technology</b>	Far-Infrared, Negative Ion and Field Gradient Magnetic Technologies
<b>Materials</b>	100% Stainless Steel.
19083	Stainless steel
19084	Gold plated

## Magnetic Necklaces

- Perfect for use with Kirei pendants
- Contains magnetic technology

Both glamorous and elegant, our unisex necklaces are available in highly polished stainless steel or gold-plated stainless steel designs. The perfect accompaniment for use with the Kirei® Pendants, they come packaged in a smart presentation box, making great gifts for any occasion.

### Care instructions:

Wipe gently with a soft, damp cloth. Do not immerse in water.

<b>Technology</b>	Field Gradient Magnetic Technology
<b>Dimensions</b>	47cm (extension chain 5cm)
<b>Materials</b>	100% Stainless Steel.
19081	Silver Tone
19082	Gold Tone





# Rejuvenate Appendix

## Magnetic Fields

"Magnetic Field Deficiency Syndrome"  
*Japan Medical Journal* No. 2745 December 4th, 1976 Dr. Kyoichi Nakagawa, Director Isuzu Hospital, Tokyo

"The Body Electric"  
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## Negative Ions

*There's Something in the Air: Empirical Evidence for the Effects of Negative Air Ions (NAI) on Psychophysiological State and Performance.*  
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## Far-Infrared

*Promotive effects of far-infrared ray on full-thickness skin wound healing in rats.*  
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*The effects of repeated thermal therapy for two patients with chronic fatigue syndrome.*  
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*The effects inhibiting the proliferation of cancer cells by far-infrared radiation (FIR) are controlled by the basal expression level of heat shock protein (HSP) 70A.*  
Jun Ishibashi,1 Kikuji Yamashita,1 Tatsuo Ishikawa,1 Hiroyoshi Hosokawa,2 Kaori Sumida,1 Masaru Nagayama,2 and Seiichiro Kitamura1  
*Med Oncol.* Jun 2008; 25(2): 229–237.

*Far-infrared radiation acutely increases nitric oxide production by increasing Ca(2+) mobilization and Ca(2+)/calmodulin-dependent protein kinase II-mediated phosphorylation of endothelial nitric oxide synthase at serine 1179.*  
Park JH1, Lee S, Cho DH, Park YM, Kang DH, Jo I.  
*Biochem Biophys Res Commun.* 2013 Jul 12;436(4):601-6.

# Legal Guidance - further info

## Unfair Commercial Practices

**Be clear about all the characteristics of the product, including price, components, ingredients and the way to use it. In addition, you should be clear about your identity and the fact that you are an independent Nikken consultant.**

The set of rules described below are contained in Directive 2009/29/EC and the Guidance provided for by the European Commission. All the relevant European law on this matter can be found at [ec.europa.eu/justice](http://ec.europa.eu/justice).

## What are unfair commercial practices?

EU law states that: A commercial practice shall be regarded as misleading (i.e. unfair) if it contains false information and is therefore untruthful or in any way deceives or is likely to deceive the consumer. Liability may arise even where information is factually correct, but it is used to mislead the consumer.

## What is the definition of confusing marketing?

It consists in providing false information on products. EU law prevents traders from providing false information with regards to many aspects of a product. The most important ones are the main characteristic of the product (including method and date of manufacture, geographical or commercial origin); and the nature, attributes and rights of the trader or his agent, such as his identity and assets, his qualifications, status, approval, affiliation or connection and ownership of industrial, commercial property rights or his awards and distinctions. This is why you should always identify yourself as an independent consultant.

## What is the EU policy concerning environmental claims?

The expressions "environmental claims" or "green claims" refer to the practice of suggesting or otherwise creating the impression (in the context of a commercial communication, marketing or advertising) that a product or a service, is environmentally friendly (i.e. it has a positive impact on the environment) or is less damaging to the environment than competing goods or services. This may be due to, for example, its composition, the way it has been manufactured or produced, the way it can be disposed of and the reduction in energy or pollution which can be expected from its use. When such claims are not true or cannot be verified this practice can be described as "green washing".

## Health and nutritional claims on food products

**If you want to have more details about health and nutritional claims, please refer to each individual product page. In the product's page, you can find what ITS INGREDIENTS ARE and what are the claims that you are authorised to make on the product.**

The rules on health and nutritional products come from Regulation 1924/2006.

## What is a nutritional claim?

A claim is a nutritional claim if in the naming of the substance or category of substances, there is only factual information. Examples are "contains lycopene" and "contains lutein". All the relevant nutritional information is contained in the product labelling and is easily found by the independent consultant and the customer.

## What is a health claim?

A health claim contains a description or indication of functionality or an implied effect on health. It goes beyond naming a substance; it actually states or implies that the substance has a particular effect on the human body.

Example: "Biotin contributes to normal energy-yielding metabolism". Equally, claims which refer to an indication of a functionality in the description of a nutrient or a substance are also classified as a health claim.

Examples: "with prebiotic fibres" or "contains prebiotic fibres".

## Can I advertise using a health claim?

We have a policy against non-authorised health claims. Indeed, in our website you can find a restatement of Nikken's Policy on medical claims:

*"The Nikken products are NOT considered to be – and are NEVER offered or intended as – medicines or medical treatments for any disease or disorder, either physical or mental.*

*Neither Nikken nor our Consultants are permitted to make any medical or therapeutic claims about Nikken products. A therapeutic claim is any claim that states that the product will change the physiology of the skin, cells, or the body such as claiming that a product "heals" or "cures" a disease. Hence the use of words or phrases "bio-magnetic," "therapy," "therapeutic," "increased circulation," "cures," "heals," "healing," "healing power," etc. is not permitted."*

As a general rule, you must avoid the following words:

- Cures
- Alleviates
- Helps
- Boosts
- Improves
- Natural
- Use for
- Detox
- Suppresses
- Anti-inflammatory
- May help with
- Prevents
- Enhances
- Benefits
- Safeguards against
- Repairs
- Reduces
- Relief for
- Anti-biotic
- Balances the immune system
- Suffers from.

Please note that this list is not closed and the final objective is not to relate any product with a health/medical claim.



# Keep up to date with Nikken



There's always something new and exciting happening at Nikken! Make sure you hear about it first by joining us on:

MyNikken – [www.mynikken.eu](http://www.mynikken.eu)

Facebook – [www.facebook.com/NikkenEU](http://www.facebook.com/NikkenEU)

Twitter – [www.twitter.com/NikkenEurope](http://www.twitter.com/NikkenEurope)

LinkedIn – [www.linkedin.com/company/nikken-uk](http://www.linkedin.com/company/nikken-uk)

YouTube – [www.youtube.com/NikkenEurope](http://www.youtube.com/NikkenEurope)

Here we'll update you with all our news, product updates and launches, relevant blogs, useful links, and interesting discussions.



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