

A brief description - How NutriKane helps our bodies

5 Quick points:

1. NutriKane is made of highly nutritious foods that are mixed together in the right proportions to give many people the nutrition they need to deal with day to day stresses as well as many specific medical conditions. There is no one “Superfood” in the world but you can make “Super-mixes” like NutriKane to help specific problems.
2. The complexity of NutriKane means that it is very effective in normalising your gut “microbiome” which are the bacteria in your intestines that keep you healthy. It is now well known to the science and medical community that good intestinal health helps the body cope with everything from cancer to dementia, and is absolutely essential to good overall health and wellbeing.
3. Unlike simple supplements, that claim to be miracle cures but only have a part of the answer, NutriKane contains soluble and insoluble fibres, resistant starches, antioxidants and essential minerals, all in the forms that your body needs to utilise them. NutriKane isn’t a magic pill but it does provide a large part of what is missing from a healthy diet in many people.
4. Improving the health of our gut with NutriKane alleviates symptoms of IBS and IBD, provides people with more energy and helps with recovery from exercise or sickness. It has also been shown to improve blood sugar management and insulin sensitivity which benefits a wide range of conditions.
5. By providing the nutrients that many of us need some of the proven benefits of NutriKane are: increased healthy weight loss in individuals that are engaging in healthy diet and exercise, improved blood sugar management in prediabetes, lowered inflammation from exercise, sickness and health issues.

What is NutriKane

NutriKane is a mixture of natural food ingredients that have been selected and tested to ensure they provide real health benefits and are free of any contaminants.

NutriKane is a mixture of soluble and insoluble fibre and resistant starch. More importantly though, these fibres are not heavily processed, which means the associated nutrients and waxes that are naturally occurring in the plants are still present in NutriKane. This mixture of fibres is consistent with many natural vegetable sources (approximately 3:1 Insoluble: soluble dietary fibre).

Most importantly NutriKane is a complex food not just an artificial fibre boost like many of today’s supplements. Complex foods are very important to our health. The highly processed foods common in today’s society are examples of simple, non-nutritious non-complex food sources.

Most dietary fibres are either highly processed, come from the outer husk of a seed, or from dead tissue. NutriKane contains whole grains and active parts of vegetables. This means it not only contains fibre (which is good in its own right) but also contains many of the essential nutrients that the body needs to function.

Sources: MediKane in-house scientific analysis; Macquarie University ITTC program; Literature on effects of complex foods vs simple supplements

Modes of Action:

The specific way that a food or medicine works on the body are referred to by scientists as “Modes of Action”

The following are the Modes of Action that have so far been identified for NutriKane. Unlike Medications that typically only have a single “Mode of Action” Medical Nutrition products like NutriKane work on several things at the same time. The benefits of NutriKane cannot be assigned to any one “Mode of Action” as the importance of each Mode of Action will vary for each person, depending on diet, general health, infection levels, exercise, age, genetics and a whole raft of other things. The power of nutritional products is that they help the body to rebalance and work as it should, so that it can repair itself.

NutriKane improves gut health by normalising the Gastrointestinal tract

The best way to think about NutriKane and its health-giving properties in human bodies is that it helps get a person’s Gastrointestinal tract (which is central to a person’s overall health) back to normal. We say it ‘normalises’ the gut. This means however, that if a person was 100% fit, 100% healthy, and their diet was perfect, then NutriKane would not make a noticeable difference to them or their health.

The benefit of NutriKane (to almost anyone in today’s society) is that our diets are not ideal (even for those that genuinely try – including growing all their own fruit and vegetables); also, people become injured or have a range of infections (which is normal and occurs to most people) or they damage tissues by accident, when they need the benefits of prescription drugs (that unfortunately do unwanted damage to the body as a side effect of their benefit), or due to physical exertion.

NutriKane improves the health of the GI (Gastrointestinal tract) by helping it get back to the way nature intended it to be, millions of years ago as humans developed. In recent years a huge amount of scientific work has shown that a healthy GI tract not only assists overall health and nutrition but to also improve a diverse range of conditions from cancer survival rates to cognitive health, (including effects to reduce depression). It has become universally accepted that there is a direct link between the gut and the brain.

Sources: Macquarie University ITTC, Royal Melbourne Hospital clinical trials, scientific literature

NutriKane provides ‘Bio-available’ nutrients

The human body can be viewed as a massively complex chemistry set. Literally billions of chemical reactions occur in our bodies from the time we are conceived until just after we die. Of these myriad of bio-chemical reactions, modern science properly understands only a few thousand of them.

To make the job of understanding nutrition easier it has been divided into 2 groups – Macronutrients (protein, fat, carbohydrate, dietary fibre) and micronutrients (everything else). The human body needs both Macro and Micro nutrients. Vitamins are commonly known examples of micronutrients.

A key aspect of the foods we eat is that they provide raw materials in the form of biochemicals that are used by our bodies. The critical thing to understand in human nutrition, is that the body has to have the specific nutrient / bio-chemical it needs, and very often will not use ‘mimic molecules’ which many Supplements contain.

For example, there are many different chemical forms of most essential trace elements and nutrients, and the body only properly uses specific forms of the chemical, and the form it uses is the same form it has obtained from foods for millions of years. The correct forms of nutrients that the body can use are called ‘bio-available’.

The body only utilises ‘bio-available’ nutrients, meaning that the vast majority of the chemicals in today’s mass marketed Supplements are passed out of the body in human waste. If the body doesn’t recognise a chemical as ‘bio-available’ it will discard it.

This is a very important differentiation between truly natural products like NutriKane and the huge numbers of supplements that have swamped our markets.

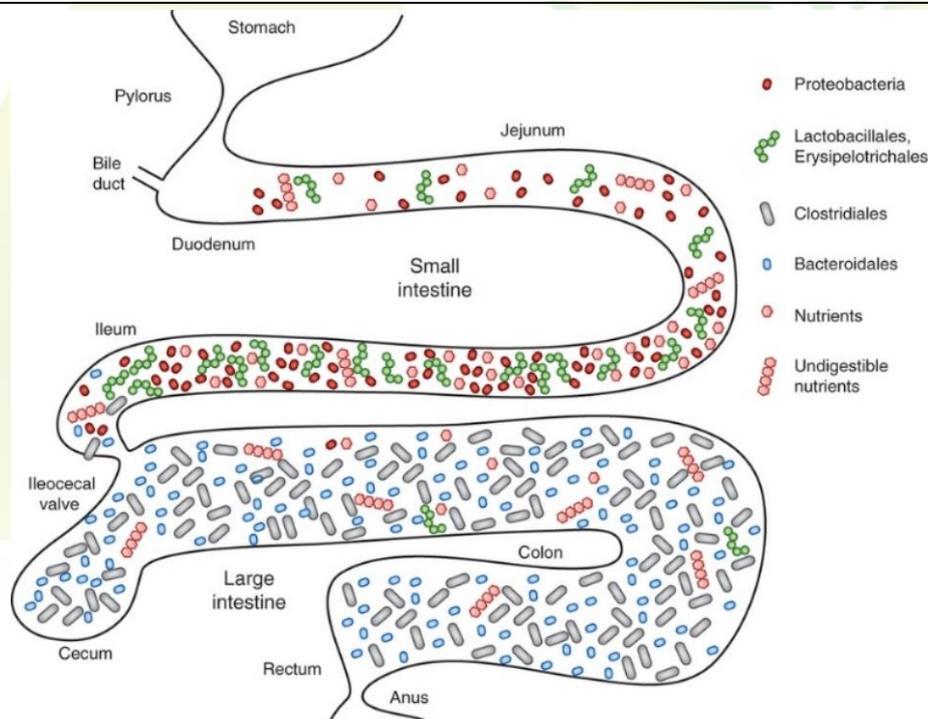
Sources: Macquarie University ITTC program, Monash University undergraduate course; MediKane in-house science, Multiple scientific papers;

NutriKane is a broad spectrum pre-biotic. It feeds your microbiome

The “microbiome” is the term for the trillions of bacteria that live inside our Gastrointestinal tract, from the mouth to the anus, and is shown in the diagram below. A “pre-biotic” is a food that feeds the bacteria.

University tests showed that NutriKane is a ‘broad spectrum’ pre-biotic, meaning it feeds many different types of bacteria. We have also shown it specifically feeds the healthy bacteria and reduces the number of unhealthy bacteria in the gut. To be healthy, a person needs a very diverse range of bacteria in their gut and is one of the ways NutriKane helps maintain a healthy gut. The bacteria only reproduce for a short period of time compared to us (hours to days) so they need to be constantly fed and nourished as they grow. The short life span of the bacteria coupled with the importance on everything they do for us is why we can see dramatic changes to our health, wellbeing and mental state in such a short period of time after a healthy change in activity

It is also interesting that some of the essential nutrients that people need to maintain good health, to recover from injury and resist infection are not found in plants or animals. They are only produced by the bacteria in our gut, so it is essential the bacteria are themselves healthy and well nourished.

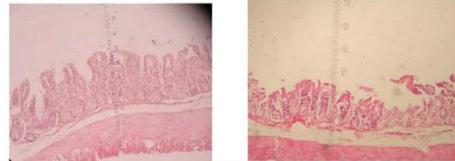


Source: Macquarie University research on NutriKane, multiple scientific papers

NutriKane improves absorption of nutrients from foods

Intestinal health is closely related to the health of the Villi which are tiny filaments in our intestines through which nutrients are absorbed from our food. In a healthy person these tiny filaments stand up and protrude into the small intestine and come into contact with the food as it passes through the GI tract. Nutrients are absorbed into our bloodstreams through these Villi (which greatly increase the surface area of the small intestine to maximise its ability to absorb nutrients). The Villi can be damaged by many things, including malnutrition, certain chemicals. Many GI issues are also caused by inflammation of the Villi. NutriKane has been shown to help maintain the health of the Villi.

These are electron microscope images of the wall of the small intestine. The first shows a healthy intestinal wall while using NutriKane. The second image shows the same intestine but now fragmented and unhealthy after NutriKane was withheld. After NutriKane was again part of the diet the intestine returned to health.



It shows that NutriKane will pro-actively improve the health of the Villi on the walls of the small intestine (where most nutrients are absorbed into the body) thereby helping to increase nutrition and overall health of the person. In summary NutriKane allows the body to absorb nutrients more effectively, and allows the body to address deficiencies and work more efficiently.

Source: Prof A Shinjo, U of Ryukyus

Benefits to Users:

NutriKane lowers the GI (Glycaemic Index) of a meal when taken with the meal

The Glycemic Index (GI) is a relative ranking of carbohydrate in foods according to how quickly they are absorbed into the bloodstream and converted to glucose. The lower the GI of a food the slower they are absorbed which in turn results in a slower rise in blood glucose.

This is particularly important for people living with diabetes and also been shown to be of value for people that want to manage hunger cravings or improve exercise performance. By slowing the absorption of the energy a sustained boost is provided during and/or after exercise.

It has also been shown in a large European study that a lower GI diet not only increases weight loss (when trying to lose weight) but that people who maintain a lower GI diet (without changing the actual calories consumed) are less likely to put weight back on.

Sources: University of Sydney glycaemic index analysis; dietician led weight loss regimen with and without the inclusion of NutriKane,

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3359496/pdf/ukmss-47834.pdf>

NutriKane improves recovery after exercise

When the body is subject to exercise many changes occur in the body including micro muscle tears, use of blood glucose, stimulation of insulin production and inflammation which is needed as a part of getting fitter. Most people know that muscle soreness after intense exercise is due to lactic acid build up – what they don't realise is that the actual damage and pain is due to tissue inflammation. The anti-inflammatory activity of NutriKane not only reduces the soreness but actually helps the body recover more quickly. In addition a healthier gut, makes it easier it is for the body to recover and repair itself. From multiple in-house studies, it has been found NutriKane will assist rapid recovery and repair, related to its primary effect on the GI tract.

Source: MediKane data: Scientific papers on gastrointestinal health.

NutriKane assists weight management

Multiple customer and internal trials have demonstrated NutriKane's ability to assist with weight management, and an external dietitian controlled trial supported this finding. NutriKane has several 'Modes of action' including making the person feel 'full' (satiated) and this in turn triggers the brain to 'switch off' the hunger desire. The lowering of GI of foods helps reduce cravings and the micronutrients allows food to be properly processed.

Sources: MediKane Internal case studies; Dietitian led controlled trial.

NutriKane improves bowel regularity and stool consistency

Regular bowel movements are important to maintain in a health regime, and yet constipation and incontinence are two of the biggest health complaints in the modern world. The problem is particularly prevalent in women (up to 30% of Australian women complain of constipation) and it is a major issue in women who are otherwise healthy. It is important to note that 'being normal' may vary from several bowel movements per day to one every one or two days, depending on the individual.

A clinical trial conducted on NutriKane showed it improve the consistence and softness of a person's stools and significantly helped them achieve regular bowel movements. Having waste move quickly through the bowel has been shown to minimise many adverse health conditions and restrict the absorption of unwanted biochemicals like cholesterol.

Also:

The bacteria in our GI tract produce Short Chain Fatty Acids which are essential and provide energy to human cells.

The 'rough' insoluble fibre scrapes the internal lining of the intestines which cleans the bowels.

The soluble fibre increases stool bulk and improves the softness of stools, so they can be more easily passed during normal bowel motions.

When we are constipated it has been shown that toxins can be re-absorbed into our bodies causing a number of knock on health issues.

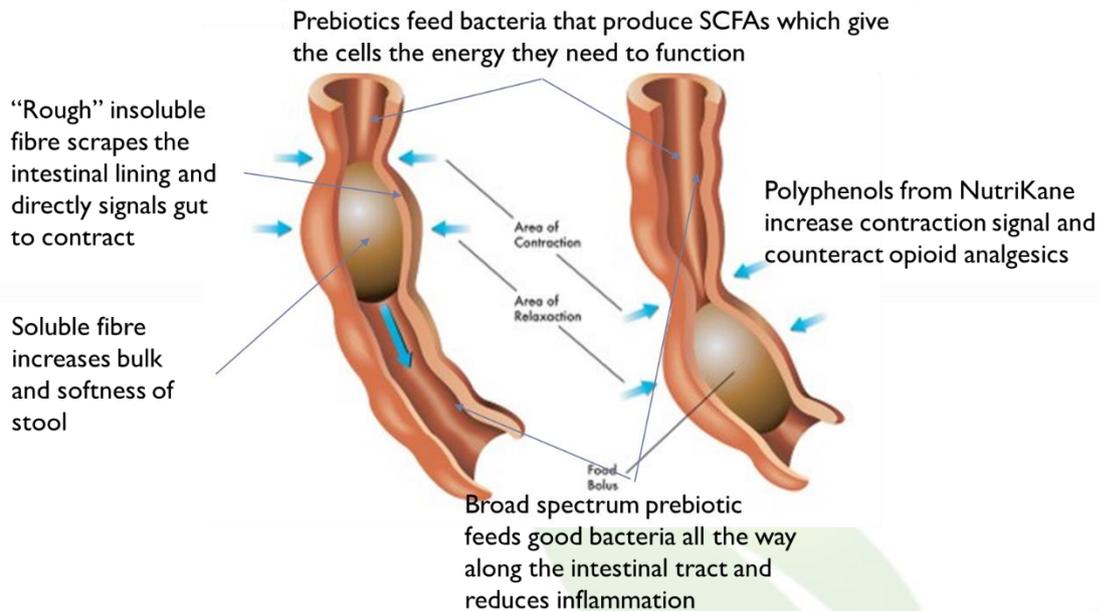
High protein low calorie diets – such as those being used by people who are trying to lose weight have been shown to increase the risk of constipation and it has been shown that when constipation occurs it can reduce the benefits of a training regimen.

Source: Two clinical trial run on NutriKane by Royal Melbourne Hospital

NutriKane stimulates peristalsis in the lower bowel

Peristalsis is the process the body uses to push food from the mouth to the stomach through the oesophagus, and also to push food and then waste material from the stomach to the 'drain' (anus). Having a healthy bowel and effective peristalsis is critical to good health and is known to minimise the risk of many health problems including many cancers.

The figure below shows the various ways NutriKane assists peristalsis and bowel health.



Sources: Scientific literature, Internal MediKane studies

NutriKane stimulates the Hindgut – the back half of the small intestine

The combination of natural fibres found in NutriKane allow the body to absorb nutrients more slowly and over the whole of the intestines rather than having a large dose quickly in the first section of the Gastrointestinal track. There are essential hormones that are only produced in the back portion of the gut "The Hindgut Mechanism" and these are only released into the body if the 'Hindgut' is actively working. One theory for the prevalence of metabolic disease is that processed foods feed only the first quarter of our intestines. This can result in only ¼ of our gut producing signals saying we are full, and ¾ signalling we are still hungry. Not surprisingly this results in mixed signals, obesity and disease.

Contrary to what you might think, we are not designed to eat easy to digest foods (this is why our gut is so big) and this is particularly a problem for people that eat a lot of protein shakes, or "nutribullet smoothies". By adding NutriKane to a diet regimen it allows the micronutrients to be absorbed along the entire length of the intestines which means that you get an effective slow release of what you need. This makes your system work better and when your digestion works better, then it is more able to cope with specific problems.

Sources: Macquarie University: Scientific research papers

NutriKane reduces systemic inflammation

NutriKane reduces 'systemic inflammation' in our bodies and as such, can help anyone regardless of age, fitness and diet. People who stress their bodies emotionally or physically appear to be the most at risk and therefore have the most to gain from regular use of NutriKane.

Systemic inflammation is the chronic biological response of tissues to dangerous elements like pathogens or damaged cells. The presence of the detrimental stimuli spur the immune system into action, and, as a protective measure, an immune response is emitted that results in inflammation.

Inflammation is just a part of life, the inevitable cost of having a powerful immune system, as evolution had to juggle the pros and cons of a potent defence system. There's probably always some inflammation going on somewhere in the body in most people, and it even fluctuates in natural daily rhythms. This entire process is normal in the human body, but when it occurs on a constant basis it is classified as systemic inflammation.

Certain diets may contribute to inflammation as well. A diet high in simple carbohydrates and low in micronutrients has been shown to create the ideal conditions for inflammation to take hold. Any stress causes inflammation, even when you are doing the right thing (like exercising and eating a healthy diet) and it falls largely on our foods to try and combat this.

Systemic inflammation can also be caused by environmental factors, stress, and even mental health issues. If one is regularly exposed to dangerous chemicals, stress or panic-inducing situations, or possesses a predisposition to depression, inflammation can become a chronic (systemic) problem. It can manifest in a variety of ways, from a sore throat to aching joints and even to loss of mental focus or lethargy. If unchecked, inflammation can lead to a variety of degenerative diseases and autoimmune disorders. Atherosclerosis, Alzheimer's disease, some cancers, congestive heart failure, and arthritis are some of the most commonly reported. Early intervention and treatment are key to keeping systemic inflammation under control, or using a product like NutriKane that reduces systemic inflammation.

Sources: Macquarie University:

<https://www.womenshealthnetwork.com/inflammation/what-is-chronic-inflammation.aspx>

NutriKane improves control of blood sugar levels (BSL)

NutriKane has been proved to help people control and manage their blood sugar levels. It is normal for blood sugar (glucose) to continually rise and fall throughout each day for our whole lives.

After eating and during exercise (as the body converts fat to sugar for the cells to use) the BSL will rise and (depending on fitness) will drop back to normal levels as we recover. This is normal although some people experience abnormal highs and lows. NutriKane has the ability to 'reduce the highs' and raise the 'lows' for people that can benefit from that assistance. NutriKane has been shown to also reduce both the instantaneous BSL levels (measured by sampling a drop of blood at a finger) and also the long term 'average' BSL as shown by measuring the amount of glucose that is chemically bonded to Haemoglobin molecules in our bloodstreams – this universal measure is called the HbA1c and is typically taken every 3 months for those who need to continually measure their BSL.

Source: Clinical trial summary from the Royal Melbourne Hospital, In-house MediKane trials, health care professionals in general practice.