

THE NUTRIKANE PRODUCT RANGE

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# Rationale, Science, Trials & Ingredient Information

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# MediKane and the NutriKane Product Range

## Behind the Brand

MediKane was co-founded in 2010 by Dr. Malcolm Ball (biochemist and pharmaceutical designer) and Rod Lewis (biochemist and senior food executive). Their collaboration began after discovering a high fibre food with exceptional gut health properties—including reducing the Glycaemic Index of meals more effectively than simple dietary fibres, such as psyllium husk or wheat dextrin.

MediKane is an innovative Australian company. Its unique natural ingredients can significantly benefit people with chronic health conditions. MediKane created the NutriKane range by combining rigorous scientific research with a strong belief in Food-as-Medicine. We don’t just rely on existing literature—we test each ingredient, build relationships with suppliers, and conduct our own clinical trials to validate effectiveness and dosage.

We are continually expanding our formulations to address a wider range of health concerns. Wherever possible, we use upcycled Australian ingredients—making sustainability a core part of our mission.

## The power of food to heal

We don’t just believe in food’s power to heal—we know it. Over the past 15 years, MediKane has researched a range of natural foods with proven medicinal and protective qualities. These foods have been shown to assist with gut health:

- Managing blood sugar levels
- Digestive regularity
- Inflammation reduction
- Joint & Skin health

This knowledge formed the basis of NutriKane’s ‘Farmerceuticals’ approach. This being that our Food-as-Medicine products have evidence based formulations in dosages designed to work synergistically with the body.

The adage “You are what you eat” has been established through research. Diet directly influences not just disease risk, but also how individuals manage existing conditions. While certain foods have been shown to increase the risk of chronic health conditions, others have been shown to prevent or reduce symptoms.

The International Diabetes Federation and Diabetes Australia recognise that dietary management is crucial to controlling—and potentially reversing—type 2 diabetes. However, it is often not easy for people to find the nutrients the body needs.

What is clear, is that nutrition is a central pillar of preventative health.

## Gut health and systemic balance

Research in the last 10 years has greatly expanded our understanding of the gut microbiome’s role in health. It’s now known that Systemic Inflammation and immune function are tightly linked to gut health. Gut health is tightly linked to overall wellbeing.

Unfortunately, most modern diets are lacking in the micronutrients required to repair and maintain optimal function. Many chronic conditions arise not from permanent damage, but from systems being “out of tune.”

By nourishing the microbiome and reducing inflammation, NutriKane helps restore the body’s natural balance and resilience.



## Why Food-as-Medicine is needed today

In today’s world, it’s harder than ever to eat a consistently healthy diet. Supply chain delays reduce the nutrient density of fresh produce, and food processing strips ingredients of their natural benefits.

For most of human history, we consumed food directly from local farms and markets. Because food was eaten very quickly and grown in naturally fertilized soils, the nutrients were available for everyone to benefit from. In order to make food more easily transportable and available to more people, today’s processed food often lacks the complexity and variety our bodies and microbiomes require to thrive.

NutriKane utilises technology designed specifically to maintain these nutrients using minimal processing, which bridges this gap by feeding both the body and the microbiome with nutrient-rich, natural ingredients.

We know and understand that nutrition becomes a central pillar of preventative health.

## The foundation of NutriKane

NutriKane is a blend of natural food ingredients—that contain soluble fibre, insoluble fibre, and resistant starch, minerals, vitamins, and antioxidants. Unlike many processed supplements, NutriKane aims to preserve the full nutrient profile from whole foods.

Its fibre ratio (approximately 3:1 insoluble to soluble) is that of natural vegetables, making NutriKane a true complex food—not a synthetic supplement.

NutriKane generates a complex combination of effects that produce the overall health outcomes.

## What makes NutriKane Food-as-Medicine?

A single serve of a NutriKane product provides essential fibres, nutrients, trace elements and minerals clinically proven to improve gut and microbiome health.

A healthy gut is key in supporting all bodily functions, including resisting and fighting infection, supporting glucose homeostasis, reducing Systemic Inflammation and and gives the body what it needs to remove toxins from your system.

Each NutriKane product is:

- Scientifically formulated to target specific health concerns
- Purposefully dosed based on therapeutic analysis

MediKane has conducted direct efficacy trials against supplement products available in Australia—and NutriKane has outperformed them all.



## NutriKane's Modes of Action

The specific ways that foods and medicines work in the body's biochemistry are referred to by medical scientists as "Modes of Action". This relates specifically to how the product interacts with the body's biochemistry.

NutriKane works through multiple biological pathways:

- Physical/chemical interaction with the gut
- Absorption of bioactive micronutrients
- Prebiotic effects on gut flora

The synergy of these modes of action is key to its efficacy.

Unlike pharmaceuticals that act on a single pathway, NutriKane can influence multiple physiological systems at the same time, with its effects shaped by a person's diet, health, and age.

NutriKane is designed to integrate into a full management regime. By consuming NutriKane the body functions at its best, meaning that should pharmaceutical's be necessary they function more effectively. For this reason, many health care practitioners have found that lower dosages of pharmaceuticals achieve the same results, limiting potential side effects.

The Modes of Action that have so far been identified for NutriKane are as follows:

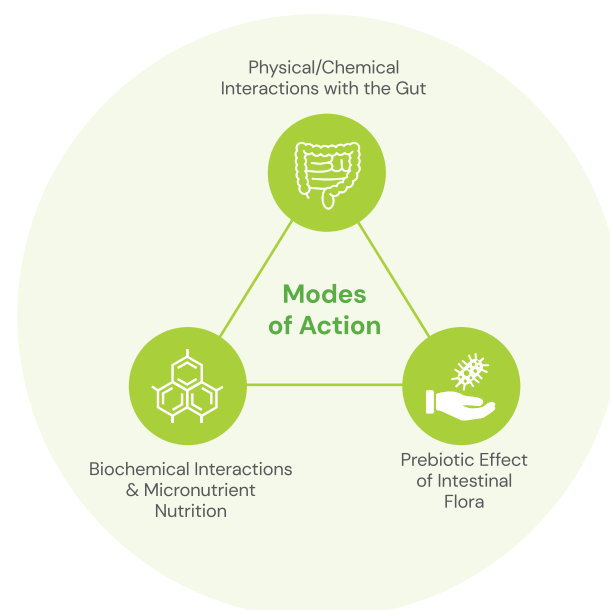
### NutriKane is a Broad Spectrum Prebiotic – It feeds all of your microbiome.

The "microbiome" is the common term for the trillions of bacteria that live on and inside our bodies. The gut microbiome inhabits our gastrointestinal tract, from the mouth to the anus. More than 3000 species have been identified so far and it has been shown that there are distinct populations in different parts of the Gastrointestinal tract.

Both beneficial and detrimental bacteria live in our gut and many species can be either depending on the circumstance (conditional pathogens). A prebiotic is a food that feeds the bacteria but not our bodies directly.

University studies showed that NutriKane is a 'broad spectrum' prebiotic, meaning it feeds many different types of bacteria, unlike simple fibres such as psyllium husk that only feed one group. It has been shown it specifically feeds the healthy (probiotic) bacteria and reduces the number of unhealthy (pro-inflammatory) bacteria in the gut. It is known that if one group of bacteria (even so called healthy bacteria) becomes too large a percentage of the population then this can lead to health problems (such as small intestinal bacterial overgrowth).

All data to date has shown that to be healthy, a person needs a diverse range of bacteria in their gut, that maintains a balance. By using complex prebiotic foods rather than simple fibre supplements NutriKane helps maintain this balance which in turn results in a healthy gut.



Bacteria in the gut reproduce in a short period of time (minutes to hours) so they need to be constantly fed and nourished to maintain the health of the microbiome. The short life cycle of the bacteria coupled with the importance of everything they do for us is why we can see dramatic changes to health, wellbeing and mental state in such a short period of time after a healthy change in diet, or a deterioration if eating an unhealthy diet.

A healthy microbiome is essential to the body's ability to maintain correct blood sugar levels (called glucose homeostasis). Many essential nutrients that the body needs such as short chain fatty acids for metabolism, 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.

### NutriKane Provides Bioavailable Nutrients

The human body can be viewed as a massively complex chemistry set. So far science has managed to identify nearly 10,000 different types of reactions that occur in about 900 distinct pathways, and many more are yet to be discovered.

The vast array of nutrients our bodies need have been divided into 2 broad groups – Macronutrients (protein, fat, carbohydrate, dietary fibre) which are mainly used as building blocks and energy and are needed in relatively large quantities every day, and Micronutrients (everything else) that are essential to make all of the chemical reactions in our bodies work but are needed in relatively small amounts compared to the macronutrients. The human body needs both macro and micronutrients to grow and remain healthy.

Vitamins and minerals are commonly known examples of micronutrients. While many micronutrients are common in nature (iron for example) it is important to understand that when they are used in biochemistry, they must have very specific forms, and often require other molecules to be present to function. For example, It is not enough to lick a steel nail to get iron into our system, the iron must already have been modified by a plant or animal into its biochemically active form for us to then change it again into the specific form we need to use ourselves. This is why iron from meat is considered better than iron from plant sources, because it is more "bioavailable" (meaning easier for us to absorb and use).

Many supplements contain the micronutrients we need but in forms that are not easy to absorb. In addition, our bodies are not designed to absorb large doses of single nutrients on their own. There are no foods that are just B and C vitamins for example. Our bodies absorb all of the nutrients in a complex food at once. Nutrients that are required in groups are called co-factors. If the body does not have enough co-factors in the food then it will use up some of its own to try and absorb the vitamins more efficiently. Taking large doses of vitamins can deplete your body's micronutrients rather than increase them.

There is also a misconception of what bioavailable means that is a holdover from the pharmaceutical industry. When a pharmaceutical compound is not found in nature it is important to get it into the blood stream so the body can use it. When any supplements claim "bioavailable" it means the active ingredient is available for absorption. Just because a molecule is in the blood doesn't mean the body can make use of it however. In order to really get the proper nutrition our nutrients must come from foods, which is why NutriKane uses foods for all of its primary active ingredients, only supplementing the foods with vitamins that have been shown to be effective.





**NutriKane Improves The Health of the Gastrointestinal Tract**

Quite apart from benefits to the gut microbiome NutriKane also interacts directly with the intestines themselves. Counterintuitively our bodies are not designed to eat food that is easy to absorb, making all those smoothie machines actually worse for us rather than better. Highly processed foods are generally low in nutrition but the biggest problem NutriKane addresses is the simplicity of the highly processed ingredients typically causes ingredients to be absorbed in the first 25% of the gut.

This causes a major imbalance in the body’s biochemistry as many of the hormones used to regulate blood glucose levels are only produced in the last 25% of the hind gut in response to stimuli digestion. One class of pharmaceuticals that have been showing promise for blood glucose management are the GLP-1 Receptor Agonist molecules (GLP-IRA). GLP-1 is naturally produced in the hind gut in response to food digestion, which means that production is naturally stimulated by NutriKane. A little talked about molecule is GLP-2, which is produced at the same time as GLP-1 as part of the same process. GLP-2 is responsible for intestinal health and nutrient absorption. NutriKane stimulates production of both GLP-1 and GLP-2, however using GLP-IRAs have been shown to interfere with GLP-2 production reducing overall gut health.

NutriKane’s high fibre structure:

- Promotes digestion across the full length of the gut
- Stimulates the intestinal wall
- Provides nutrition

**Reducing Systemic Inflammation**

Inflammation plays an important role in disease progression and is a major component of most non-communicable diseases. Inflammation is the 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 mechanism. There is always some inflammation going on somewhere in the body of most people, and it even fluctuates in natural daily rhythms. Normally inflammation is switched off as soon as it isn’t needed. If inflammation levels do not return to normal after it is no longer useful then chronic inflammation occurs (sore joints in arthritis is an example).

If chronic inflammation migrates from a specific place to the whole body, then Systemic Inflammation occurs. Chronic and Systemic Inflammation are problems because they can damage healthy tissue. Certain diets contribute to inflammation. For example, a diet high in simple carbohydrates and low in micronutrients allows bacteria that switch on inflammation to control the microbiome, while reducing the body’s ability to switch off the inflammatory response.

Stress and exercise can also cause inflammation. Early intervention and treatment are key to keeping Systemic Inflammation under control. Scientific studies have shown a clear link between Insulin insensitivity and Systemic Inflammation, by reducing inflammation, blood glucose control is improved.

Systemic Inflammation has also been shown to negatively impact many chronic conditions such as arthritis, IBS and IBD, and Type 1 and Type 2 diabetes

NutriKane has been shown in multiple trials to reduce 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.

**Lowering the Glycaemic Index (GI) of foods**

The lower the GI of a food, the slower the carbohydrates are absorbed which in turn results in a slower rise in the blood glucose level. This is particularly important for people living with impaired control of their Blood Sugar Levels and people trying to manage hunger cravings. It slows the absorption of energy and provides a sustained boost 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 but that people who maintain a lower GI diet (without changing the actual calories consumed) are less likely to put weight back on.

NutriKane slows carbohydrate absorption, helping to flatten blood glucose spikes. NutriKane helps weight loss in multiple Australian clinical trials.

Clinical trials in Australia and international studies show it:

- Reduces post-meal blood sugar rises
- Aids in weight management when used in conjunction with a calorie controlled diet.
- Supports long-term satiety

**Enhanced Nutrient Uptake**

The villi are the tiny filaments in our intestines through which nutrients are absorbed from our food. Intestinal health is reliant on the health of villi. 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 Gastrointestinal tract. Nutrients are absorbed into the bloodstream through villi which maximise absorption by greatly increasing the surface area of the small intestine.

The villi can be damaged by many things, including malnutrition, gluten and certain chemicals. Many Gastrointestinal tract issues are also caused by inflammation of the villi.

NutriKane helps maintain the health of the villi by:

- Reducing inflammation
- Providing essential stimulation and nutrients to the intestinal wall.



## Summary of Scientific Evidence

Scientific validation of NutriKane’s core ingredient began in 2010. Key milestones include:

- Trials at Macquarie University, confirming multiple modes of action
- Three ARC-funded PhD projects through the Industrial Transformation Training Centre program
- Animal studies at the Kolling Institute (Sydney University) on glucose regulation and pancreatic health
- Five independent clinical trials at Royal Melbourne Hospital, published internationally
- Hospital studies in the U.S. (Advocate Group, Illinois) confirming benefits in blood sugar management, weight loss, recovery post-surgery, and intestinal function. Results also showed significant improvements in intestinal function from those using Opioid Analgesics.
- Independent studies published by outside institutions confirming benefits to intestinal health and inflammation management.
- Practitioner-led trials across Australia in real-world settings with consistent success

### Human Trials

NutriKane or NutriKane Specific Ingredients				
Trial	#subjects	Trial Type	End Point	Result
Alleviation of Hospital induced Constipation by NutriKane[1]	100	Randomised open label patient matched	<ul style="list-style-type: none"><li>Constipation relief</li><li>Faecal incontinence relief</li></ul>	<ul style="list-style-type: none"><li>89% improvement over current methods</li><li>Included pharmaceutical laxatives in control group</li></ul>
Improvement to intestinal health of people Spina Bifida intestinal health[2]	54	Randomised blinded placebo controlled multi centre	<ul style="list-style-type: none"><li>Constipation relief</li><li>Faecal incontinence relief</li><li>Improved quality of life</li></ul>	<ul style="list-style-type: none"><li>Participants saw improvement in all intestinal health and cognitive markers</li></ul>
Diabetes[3]	56	Randomised blinded placebo controlled	<ul style="list-style-type: none"><li>Intestinal health improvement</li><li>Blood glucose management improvement</li><li>QoL</li><li>19 total clinical markers</li></ul>	<ul style="list-style-type: none"><li>Improvement in all 19 markers over normal standard of care</li></ul>
Post surgery recovery – trauma [in-house trial]	66	Randomised open label patient matched	<ul style="list-style-type: none"><li>Constipation relief</li><li>Recurrent surgery requirement</li><li>Hospital stay length</li></ul>	<ul style="list-style-type: none"><li>Improvement on all 3 End Points over normal standard of care</li></ul>

NutriKane or NutriKane Specific Ingredients				
Trial	#subjects	Trial Type	End Point	Result
Post surgery recovery – elective [in-house trial]	31	Randomised blinded placebo controlled	<ul style="list-style-type: none"><li>Constipation relief</li><li>Faecal incontinence relief</li><li>Improved quality of life</li></ul>	<ul style="list-style-type: none"><li>All participants saw improvement in intestinal health and cognitive markers</li></ul>
Weight loss [in-house trial]	100	Randomised blinded placebo controlled	<ul style="list-style-type: none"><li>Absolute weight lost</li><li>Diet management</li></ul>	<ul style="list-style-type: none"><li>1.8x weight loss with NutriKane (2 serves a day)</li><li>20% more adherence to diet (6 days rather than 5)</li></ul>
Reflux/ Heartburn[4]	43	Randomised blinded placebo controlled	<ul style="list-style-type: none"><li>Quality of life</li><li>Number reflux events</li><li>Reflux type and severity</li></ul>	<ul style="list-style-type: none"><li>Significant reduction in events and severity compared to placebo</li></ul>
Reduction of Glycaemic Index of various meals with co-consumption of NutriKane [in house analysis]	10x4 (6 food types)	Blinded Pre-Post	<ul style="list-style-type: none"><li>Numerical Value for Glycaemic index vs control food</li></ul>	<ul style="list-style-type: none"><li>GI of meal lowered with co-consumption of NutriKane regardless of meal type of starting Glycaemic Index</li><li>Average of 26 point reduction in Glycaemic Index when NutriKane consumed with a meal</li></ul>

Ingredient related external studies				
Trial	#subjects	Trial Type	End Point	Result
Bile Acid production and Stool consistency with SCF consumption[5]	19	Blinded Pre-Post crossover trial	<ul style="list-style-type: none"><li>Stool weight</li><li>Stool fat content</li><li>Bile secretion</li></ul>	<ul style="list-style-type: none"><li>Increased stool bulk</li><li>Decreased transit time</li><li>Increased bile production and excretion of lipids</li></ul>
Reduction of glycaemic index with addition of SCF [6]	10x4	Blinded Pre-post	<ul style="list-style-type: none"><li>Numerical Value for Glycaemic index vs control food</li></ul>	<ul style="list-style-type: none"><li>37% reduction in glycaemic index</li></ul>
Chronic obstructive pulmonary disease symptom alleviation[7]	196	Multi-centre, randomised blinded placebo controlled	<ul style="list-style-type: none"><li>Pulmonary symptom scores</li><li>St George’s Respiratory Questionnaire</li></ul>	<ul style="list-style-type: none"><li>Significant improvement in SGRQ when SCF added to diet</li></ul>
Reduction of postprandial blood glucose levels with sorghum consumption[8]	10x3	Blinded Pre-post crossover	<ul style="list-style-type: none"><li>Numerical Value for AUC of postprandial glucose and insulin levels vs control food</li></ul>	<ul style="list-style-type: none"><li>26% reduction in blood glucose</li><li>53% reduction in insulin</li></ul>
Reduction of postprandial blood glucose levels with sorghum consumption in healthy men[9]	10x3	Blinded Pre-post crossover	<ul style="list-style-type: none"><li>Numerical Value for AUC of postprandial glucose and insulin levels vs control food</li></ul>	<ul style="list-style-type: none"><li>35% reduction in blood glucose AUC with sorghum foods</li><li>56% reduction in insulin AUC with sorghum foods</li></ul>



Ingredient related external studies				
Trial	#subjects	Trial Type	End Point	Result
Comparison of the Glycaemic Index and Glycaemic Load of sorghum based products to wheat and rice equivalents[10]	10x3 (6 separate products tested)	Blinded Pre-post	<ul style="list-style-type: none"> <li>Numerical Value for AUC of postprandial glucose and insulin levels vs control food</li> <li>Comparison of baked goods made with either wheat, rice or sorghum</li> </ul>	<ul style="list-style-type: none"> <li>All foods tested (flakes, course semolina, fine semolina, roti, biscuits, and pasta) had a significantly lower Glycaemic Load than their wheat/rice equivalents (average 17 points)</li> <li>Four of the foods tested (flakes, course semolina, fine semolina, and pasta) had a significantly lower Glycaemic Index than their wheat/rice equivalents (average 17 points)</li> <li>Biscuits were slightly lower and roti was slightly higher in GI – neither was significant</li> <li>Average drop in GI of sorghum foods was 12 points</li> </ul>
Postprandial metabolic function with sorghum function[11]	40 (20)	Randomised crossover	<ul style="list-style-type: none"> <li>AUC blood postprandial blood glucose.</li> <li>GLP, GLP-1, insulin, PYY, ghrelin levels post consumption.</li> <li>Subjective measures of satiety</li> </ul>	<ul style="list-style-type: none"> <li>Lower satiety when consuming wheat products compared to sorghum</li> <li>GLP-1, GLP, and PYY significantly higher shen sorghum consumed</li> </ul>
Systematic review of benefits of sorghum consumption to the treatment of chronic disease and general health[12]	N/A	N/A	<ul style="list-style-type: none"> <li>Diabetes management</li> <li>Gut health</li> <li>Longevity</li> <li>Immune response</li> </ul>	<ul style="list-style-type: none"> <li>Improved glucose response</li> <li>Lower oxidative stress</li> <li>Improved outcomes when used as an adjunct for HIV therapy</li> <li>General trend towards better health in sorghum consuming communities</li> </ul>

Animal studies

NutriKane or NutriKane Specific Ingredients				
Trial	#subjects	Trial Type	End Point	Result
Mouse – Type 1 diabetes model [performed independently by Kolling institute]	45	Randomised controlled STZ destruction of pancreas	<ul style="list-style-type: none"> <li>Pancreas islet cell loss</li> <li>Insulin requirements</li> <li>Kidney function</li> </ul>	<ul style="list-style-type: none"> <li>Halted degradation</li> <li>Significantly lower insulin requirements</li> <li>Kidney protection demonstrated that was not dependent on blood glucose levels</li> </ul>
Mouse – Type 2 diabetes model [13, 14]	60	Randomised controlled high fat diet	<ul style="list-style-type: none"> <li>Blood glucose levels</li> <li>Liver function</li> <li>Weight gain</li> <li>Microbiome modification</li> </ul>	<ul style="list-style-type: none"> <li>Reduced chance of liver disease</li> <li>Reduced weight gain</li> <li>Blood glucose stabilised</li> <li>Microbiome positively impacted</li> </ul>

NutriKane or NutriKane Specific Ingredients				
Trial	#subjects	Trial Type	End Point	Result
Mouse IBD with probiotic and SCF intervention[15]	50	Randomised controlled supplemented diet probiotic use with colitis induction	<ul style="list-style-type: none"> <li>Inflammation levels</li> <li>SCFA production</li> <li>Intestinal wall damage</li> </ul>	<ul style="list-style-type: none"> <li>Inflammation significantly reduced</li> <li>SCFA production increased</li> <li>Cellular damage in the intestine reduced</li> <li>Symbiotic effect with probiotics</li> </ul>
Mouse IBD with probiotic and SCF intervention[16]	32	Randomised controlled supplemented diet probiotic use with genetically deficient mice	<ul style="list-style-type: none"> <li>Inflammation levels</li> <li>SCFA production</li> <li>Intestinal wall damage</li> </ul>	<ul style="list-style-type: none"> <li>Inflammation significantly reduced</li> <li>SCFA production increased</li> <li>Cellular damage in the intestine reduced</li> <li>Symbiotic effect with probiotics</li> </ul>

Ingredient related external studies				
Trial	#subjects	Trial Type	End Point	Result
Feline hairball[17]	36	Randomised controlled Kibble with and without sugar cane fibre	<ul style="list-style-type: none"> <li>Number of hairballs</li> <li>Total hairball mass</li> </ul>	<ul style="list-style-type: none"> <li>Reduction in total and mass of hairballs with sugar cane fibre addition to kibble</li> </ul>
Feline blood glucose levels[18]	24	Randomised blinded, controlled	<ul style="list-style-type: none"> <li>Digestibility</li> <li>Fermentation end products</li> <li>Postprandial blood glucose levels</li> </ul>	<ul style="list-style-type: none"> <li>Sugarcane fibre was found to have least digestibility resulting in lower total calorie intake (implies satiety as more food was not consumed to account for calorie deficiency).</li> <li>Postprandial blood glucose response was lower in SF containing diets</li> </ul>
Feline reduced feed intake[19]	79	Sequential pre-post crossover	<ul style="list-style-type: none"> <li>Palatability</li> <li>Voluntary feed intake</li> </ul>	<ul style="list-style-type: none"> <li>No reduction in palatability</li> <li>Amount of food consumed per sitting and number of feeding events reduced when sugarcane fibre added to food</li> </ul>
Canine blood glucose management using grain sorghum[20]	10	Sequential pre-post crossover	<ul style="list-style-type: none"> <li>AUC postprandial blood glucose.</li> <li>Fasting, mean, minimum and maximum glycaemia and serum fructosamine</li> </ul>	<ul style="list-style-type: none"> <li>Lower fasting glucose in sorghum diet</li> <li>Lower AUC postprandial glucose levels with sorghum diet</li> <li>Lower maximum blood glucose with sorghum diet</li> </ul>
Mouse hepatic signalling[21]	36	Randomised controlled High fat diet	<ul style="list-style-type: none"> <li>Lipid levels</li> <li>Insulin sensitivity</li> <li>Cholesterol</li> <li>AMPK sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>Lower triglycerides and cholesterol</li> <li>Increased insulin and AMPK sensitivity</li> <li>Lowered FGF21 production</li> </ul>



Ingredient related external studies				
Trial	#subjects	Trial Type	End Point	Result
Mouse weight loss and ghrelin signalling from SCF intake[22]	36	Randomised controlled High fat diet	<ul style="list-style-type: none"> <li>• Body weight</li> <li>• Plasma insulin</li> <li>• Leptin levels</li> <li>• Blood glucose</li> <li>• GLP-1</li> </ul>	<ul style="list-style-type: none"> <li>• Lower body weight than controls</li> <li>• Lower fat mass than controls</li> <li>• Lower fasting blood sugar than control or cellulose</li> <li>• Lower blood insulin levels than control or cellulose</li> <li>• Lower leptin levels than control or cellulose</li> <li>• Higher GLP-1 levels than control or cellulose</li> </ul>
Rat Bile Acid production from SCF intake[23]	48	Randomised controlled fibre containing and fibre free diet	<ul style="list-style-type: none"> <li>• Bile acid production</li> <li>• Serum cholesterol levels</li> <li>• Faeces bulk</li> </ul>	<ul style="list-style-type: none"> <li>• SCF produced higher bile levels</li> <li>• Fibre increased faeces bulk</li> <li>• No change in food consumption</li> <li>• No change in serum cholesterol levels</li> </ul>
Rat Lipid metabolism and hormone concentration from sorghum resistant starch intake[24]	72	Randomised controlled, ordinary diet	<ul style="list-style-type: none"> <li>• Equol production</li> <li>• Lipid metabolism</li> <li>• HDL/LDL concentrations</li> <li>• Liver enzyme production</li> <li>• Body weight</li> <li>• Abdominal fat</li> </ul>	<ul style="list-style-type: none"> <li>• Equol production increased with sorghum resistant starch intake.</li> <li>• Body weight, abdominal fat and liver size reduced with RS injection.</li> <li>• LDL reduced with RS consumption</li> </ul>
Cholesterol production and absorption with the addition of sorghum lipids to diet[25]	28	Randomised controlled	<ul style="list-style-type: none"> <li>• HDL cholesterol</li> <li>• LDL cholesterol</li> <li>• Liver function</li> </ul>	<ul style="list-style-type: none"> <li>• HDL cholesterol increased or was not reduced with sorghum; lipid consumption</li> <li>• LDL was significantly reduced with sorghum lipid consumption</li> <li>• Healthy liver function significantly increased with sorghum lipid consumption</li> </ul>

In-vitro and mechanistic data				
Trial	#subjects	Trial Type	End Point	Result
Canine microbiome[26]	N/A	In vitro canine microbiota model	<ul style="list-style-type: none"> <li>• Short chain fatty acid production</li> <li>• Insoluble/soluble mix</li> </ul>	<ul style="list-style-type: none"> <li>• SCFA production significant</li> <li>• Large percentage insoluble for bowel function</li> </ul>
Effect on inflammatory pathways[27]	N/A	Cell line challenged with inflammatory bacteria and tested with and without NutriKane	<ul style="list-style-type: none"> <li>• Pathway regulation changes</li> <li>• Anti-inflammatory effect</li> <li>• Comparison to resveratrol</li> </ul>	<ul style="list-style-type: none"> <li>• NK has 5 x the antioxidant capacity of raisins and cranberry</li> <li>• NK has 3 x the free radical scavenge of Raisins and Cranberry</li> <li>• NK acts through TLR2 and 4</li> <li>• NK and Res have different and complementary pathways</li> </ul>

In-vitro and mechanistic data				
Trial	#subjects	Trial Type	End Point	Result
Microbiome changes[28]	N/A	Invitro analysis of gut microbiome with comparing NutriKane to other fibres	<ul style="list-style-type: none"> <li>• Diversity of microbiome</li> <li>• Changes in individual genus</li> <li>• SCFA production</li> </ul>	<ul style="list-style-type: none"> <li>• Maintained diversity compared to other fibres</li> <li>• Reduced inflammatory bacteria</li> <li>• Increased probiotic bacteria</li> <li>• Increased SCFA production</li> </ul>
Microbiome changes[29]	N/A	In vitro analysis of human gut healthy and obese microbiome incubated with sorghum polyphenols	<ul style="list-style-type: none"> <li>• Diversity of microbiome</li> <li>• Changes in individual genus</li> <li>• SCFA production</li> </ul>	<ul style="list-style-type: none"> <li>• Increased populations of <i>Bifidobacterium</i>, <i>Lactobacillus</i>, <i>Roseburia</i>, and <i>Prevotella</i>.</li> <li>• Inhibited <i>Dorea</i></li> <li>• Increased SCFA production</li> <li>• Synergy observed with sorghum and other fibre sources</li> </ul>
Pharmacologically active compounds from sorghum for use with T2DM[30]	N/A	In vitro analysis of potential medically active compounds from grain sorghum	<ul style="list-style-type: none"> <li>• Analysis of number of molecules isolated from grain sorghum that confirm to Lapinski's rule of pharmacokinetics</li> </ul>	<ul style="list-style-type: none"> <li>• 20 compounds identified which were accepted by the Lipinski's rule</li> <li>• A total number of 16 compounds-related to T2DM were identified</li> <li>• Compounds were associated with 12 signaling pathways</li> <li>• Key mechanism might be to control blood glucose level by activating PPAR signaling pathway</li> </ul>
Sorghum polyphenol anti-inflammatory activity[31]	N/A	Proteomic analysis of Nf-kB pathway with LPS induction and sorghum polyphenol addition	<ul style="list-style-type: none"> <li>• Pathway inhibition by poly[henol extracts in combination with single flavonoid therapy (apigenin and quercetin)</li> </ul>	<ul style="list-style-type: none"> <li>• Addition of sorghum extract increased pathway inhibition by 14x compared to flavonoid therapy alone</li> </ul>
Inhibition of glycation with sorghum polyphenol extract[32]	N/A	Inhibition of BSA glycation using a fluorescent assay	<ul style="list-style-type: none"> <li>• Level of reduction of protein glycation</li> </ul>	<ul style="list-style-type: none"> <li>• Sorghum extract effectively reduced glycation of proteins by 60% in in vitro assays</li> <li>• This benefit was not observed with wheat, oats or rice extracts</li> </ul>
Inhibition of sucrase activity by sugarcane[33]	N/A	Sucrase inhibition in vitro assay Measurement of sugar transfer across animal intestinal wall	<ul style="list-style-type: none"> <li>• Binding capacity of sucinh to sucrase</li> </ul>	<ul style="list-style-type: none"> <li>• Peptides found in sugarcane were shown to inhibit sucrase activity and subsequently reduce the energy utilisation of animals from sugar sources</li> </ul>
Sugarcane polyphenol extract inhibition of glucose uptake[34]	N/A	Caco-2 cellular assay Syrian Hamster beta cell (HIT-T15) assay	<ul style="list-style-type: none"> <li>• Glucose and fructose uptake</li> <li>• Insulin secretion</li> </ul>	<ul style="list-style-type: none"> <li>• Extract significantly reduced sugar uptake when incubated with Caco-2 cells</li> <li>• Sugarcane extract restored insulin secretion function in compromised beta cells</li> </ul>





## The NutriKane Product Range

In response to both scientific findings and customer feedback, MediKane focused on creating condition-specific products using evidence-based serving sizes, following – dose–response principles used in the medical and pharmaceutical industries. This approach ensures the highest effectiveness and broadens the relevance of the NutriKane range.

Today, the range includes:

NutriKane D – for blood sugar control and metabolic support

NutriKane R – for bowel regularity and gut health

NutriKane I – for Systemic Inflammation and immune health

NutriKane J – for joint health and connective tissue support

We continue to refine the flavour, aroma, and mouthfeel of our products to maximise consumer compliance, while integrating new research and ingredients to further enhance efficacy.





# NutriKane D

Target: **To Lower & Control blood sugar levels**, aid weight loss (when used with a calorie-controlled diet), lower glycaemic index of meals, and promote SCFA production.

Ingredients as listed on the tub: Sugarcane Fibre (sugar removed), Red Sorghum, Natural Orange Flavour, Grape Fibre, Orange Peel Fibre, Natural Colour, Vegetable Gums, Acidity Regulators (Citric and Ascorbic Acid), Monk Fruit Powder

Serving size: 8.9 g | Serves per tub: 28



### The NutriKane ‘Seven Ticks’

- ✔ Supports blood sugar control
- ✔ Lowers the glycaemic index of meals
- ✔ Reduces chronic inflammation\*
- ✔ Improves gut microbiome diversity
- ✔ Promotes bowel regularity
- ✔ Supports weight management
- ✔ Stimulates natural GLP-1 hormone production



I have never come across a natural food product with all these benefits for diabetes and pre-diabetes. It also supports prevention through inflammation reduction and microbiome improvement.

**Dr. John Tickell**

*International Chronic Disease Researcher*



\*Studies show NutriKane promotes anti-inflammatory gut bacteria, and reduces inflammatory markers *in-vivo*  
(Prof. Ian Paulsen, Macquarie University)

## Extended Ingredients Information

**Sugarcane Fibre (sugar removed):** Our Sugarcane is unique and is a source of dietary fibre, in that even though it is mainly insoluble fibre, it acts as a soluble fibre in terms of feeding gut bacteria and producing short chain fatty acids. Unlike many fibres, sugarcane fibre comes from the growing stem which means it has lots of micronutrients and also contains unique polycosinols all of which have been shown to improve gut health and blood sugar management.

**Red Sorghum:** Red sorghum sourced from our suppliers is a good source of naturally occurring resistant starch which has been shown to improve gut health, maintain blood sugar levels and reduce cholesterol. Unlike white sorghum, red sorghum is also rich in polyphenols.

**Natural Orange Flavour:** Our Australian made natural orange flavour is used to improve palatability without adding nasty chemicals.

**Grape Fibre:** White grape fibre is rich in oligosaccharides which have been shown to be beneficial for gut health and blood sugar management. Our fibre contains both skins and seeds which means it is also contains polypphenols and polyunsaturated oils.

**Orange Peel Fibre:** Orange Peel contains a high percentage of pectin which is known to improve gut health and aid bowel regularity. The powder is made from whole peel which means it contains all of the natural oils including hesperidin, an antioxidant that has been shown to have benefits to brain, liver and heart health. Unlike hesperidin supplements, hesperidin from natural food sources has been shown to have no adverse effects.

**Natural Colour:** NutriKane uses natural vegan colours to make the product pleasant to the eye without introducing nasty chemicals.

**Vegetable Gums:** Natural vegetable gums are used mainly to improve the mouth feel when added to water, howevr they have also been shown in clinical trials to benefit gut health

**Acidity Regulators:** Citric acid is a naturally occurring acid found in fruit that gives it the “tangy” flavour. Vitamin C (ascorbic acid) is an essential vitamin for all aspects of health, particularly connective tissie repair. Vitamin C is one of the few vitamins that is known to have benefits when supplemented in foods.

**Monk Fruit Powder:** Monk fruit is a natural nonsugar sweetener that has no known side effects. We use pure monk fruit so no Erythritol is added to our products.

## NutriKane D

Mineral	mg/serve	RDI Male	RDI Female	RDI Child	RDI Average
Boron	0.04	N/A	N/A	N/A	N/A
Calcium	2.15	0.2%	0.2%	0.2%	0.2%
Chromium	0.05	140.9%	234.8%	197.2%	191.0%
Copper	0.04	2.1%	2.9%	2.7%	2.6%
Iron	2.17	27.1%	12.1%	27.1%	22.1%
Lithium	0.00	N/A	N/A	N/A	N/A
Magnesium	2.44	0.6%	0.8%	1.0%	0.8%
Manganese	0.18	3.3%	3.6%	6.0%	4.3%
Phosphorous	1.23	0.1%	0.1%	0.1%	0.1%
Potassium	15.72	0.4%	0.6%	0.5%	0.5%
Selenium	0.11	150.0%	175.0%	210.0%	178.3%
Sodium	0.28	0.0%	0.0%	0.0%	0.0%
Sulphur	2.56	N/A	N/A	N/A	N/A
Zinc	0.08	0.5%	0.9%	1.3%	0.9%
Vitamin C	100.00	222.2%	222.2%	250.0%	231.5%
Vitamin D	0.00	0.0%	0.0%	0.0%	0.0%
Total extractable polyphenol content	35.31	N/A	N/A	N/A	N/A
Total extractable flavonoid content	18.33	N/A	N/A	N/A	N/A
Extractable antioxidant activity	85.87	N/A	N/A	N/A	N/A
Ferulic acid	16.80	N/A	N/A	N/A	N/A
Octacosanol	1.05	N/A	N/A	N/A	N/A
p-coumaric acid	0.74	N/A	N/A	N/A	N/A
B1	0.00	0.4%	0.4%	0.5%	0.4%
B2	0.00	0.1%	0.1%	0.1%	0.1%
B3	0.00	0.0%	0.0%	0.0%	0.0%
B6	0.00	0.1%	0.1%	0.2%	0.1%
B9	0.00	0.1%	0.1%	0.1%	0.1%
E	0.42	4.2%	6.1%	7.1%	5.8%

Clinical Note: NutriKane D has been shown in clinical trials and real world practioner management to have >85% success in individuals seeking improved blood sugar control. It continues to be refined based on scientific findings and consumer feedback.





## NutriKane R

Target: **Support bowel regularity**, reduce bloating and indigestion, stimulate intestinal function, and improve microbiome health.

Ingredients as listed on the tub: Sugarcane Flour (sugar removed), Extracta Apple Fibre, Extracta Orange Fibre, Pectin, Potassium Bicarbonate, Citric Acid, Vegan Red Colour, Ascorbic Acid, Guar Gum, Xanthan Gum, Monk Fruit

Serving size: 7.3 g | Serves per tub: 30

### Extended Ingredients Information

**Sugarcane Fibre (sugar removed):** Our Sugarcane is unique and is a source of dietary fibre, in that even though it is mainly insoluble fibre, it acts as a soluble fibre in terms of feeding gut bacteria and producing short chain fatty acids. Unlike many fibres, sugarcane fibre comes from the growing stem which means it has lots of micronutrients and also contains unique polycosinols all of which have been shown to improve gut health and blood sugar management.

**Extracta Apple Fibre:** Our apple fibre comes from whole peel without chemical modifications which means that the pectins and natural polyphenols are in-tact. Pectin is known to help with constipation and bowel regularity and the benefits of apple polyphenols include antioxidant activity, heart health and lowering cholesterol.

**Extracta Orange Fibre:** Orange Peel contains a high percentage of pectin which is known to improve gut health and aid bowel regularity. The powder is made from whole peel which means it contains all of the natural oils including hesperidin, an antioxidant that has been shown to have benefits to brain, liver and heart health. Unlike hesperidin supplements, hesperidin from natural food sources has been shown to have no adverse effects.

**Pectin:** Pectin is a well established soluble fibre used to improve gut health and relieve constipation both due to it's bluking capacity and it'd anti-inflammatory effects in the gut. For NutriKane R we use apple and citrus pectin to give our apple and orange fibres a little boost.

**Potassium Bicarbonate:** Potassium bicarbonate is used to help NutriKane reach the ideal pH for reduction in stomach and gut upsets.

**Citric & Ascorbic Acids:** Citric acid is a naturally occuring acid found in fruit that gives it the "tangy" flavour. Vitamin C (ascorbic acid) is an essential vitamin for all aspects of health, particularly connective tissie repair. Vitamin C is one of the few vitamins that is known to have benefits when supplemented in foods.

**Vegan Red Colour:** NutriKane uses natural vegan colours to make the product pleasant to the eye without introducing nasty chemicals.

**Guar & Xanthan Gums:** Natural vegetable gums are used mainly to improve the mouth feel when added to water, howevr they have also been shown in clinical trials to benefit gut health

**Monk Fruit Powder:** Monk fruit is a natural nonsugar sweetener that has no known side effects. We use pure monk fruit so no Erythritol is added to our products.

NutriKane R					
Mineral	mg/serve	RDI Male	RDI Female	RDI Child	RDI Average
Boron	0.09	N/A	N/A	N/A	N/A
Calcium	2.18	0.2%	0.2%	0.2%	0.2%
Chromium	0.05	140.9%	234.9%	197.3%	191.0%
Copper	0.02	1.4%	2.0%	1.9%	1.8%
Iron	2.24	28.0%	12.5%	28.0%	22.8%
Lithium	0.00	N/A	N/A	N/A	N/A
Magnesium	2.53	0.6%	0.8%	1.1%	0.8%
Manganese	0.19	3.4%	3.8%	6.3%	4.5%
Phosphorous	1.52	0.2%	0.2%	0.1%	0.1%
Potassium	133.76	3.5%	4.8%	4.5%	4.3%
Selenium	0.11	150.0%	175.0%	210.0%	178.3%
Sodium	0.28	0.0%	0.0%	0.0%	0.0%
Sulphur	3.59	N/A	N/A	N/A	N/A
Zinc	0.09	0.6%	1.1%	1.5%	1.1%
Vitamin C	100.00	222.2%	222.2%	250.0%	231.5%
Vitamin D	0.00	0.0%	0.0%	0.0%	0.0%
Total extractable polyphenol content	44.83	N/A	N/A	N/A	N/A
Total extractable flavonoid content	18.04	N/A	N/A	N/A	N/A
Extractable antioxidant activity	119.63	N/A	N/A	N/A	N/A
Ferulic acid	16.80	N/A	N/A	N/A	N/A
Octacosanol	1.05	N/A	N/A	N/A	N/A
p-coumaric acid	0.74	N/A	N/A	N/A	N/A
B1	0.00	0.4%	0.4%	0.5%	0.4%
B2	0.00	0.1%	0.1%	0.1%	0.1%
B3	0.00	0.0%	0.0%	0.0%	0.0%
B6	0.00	0.1%	0.1%	0.2%	0.1%
B9	0.00	0.1%	0.1%	0.1%	0.1%
E	0.42	4.2%	6.1%	7.1%	5.8%

Clinical Note: In trials, NutriKane R provided relief to >88% of individuals who previously had no success with fibre supplements or laxatives. NutriKane R is not a laxative; rather it helps restore gut function naturally; in clinical trials NutriKane R was also shown to restore normal function in diaorrhea patients.





# NutriKane I

Target: **Reduce Systemic Inflammation**, support gut-immune balance, and promote anti-inflammatory microbiota.

Ingredients as listed on the tub: Evaporated Cane Juice, Sugarcane Fibre, Red Sorghum, Red Grape Marc, Beetroot Powder, Citric Acid, Potassium Bicarbonate, Australian Grey Sea Salt, Vegetable Gums, Queen Garnet Plum Powder, Ascorbic Acid, Cholecalciferol

Serving size: 16 g | Serves per tub: 30

## Extended Ingredients Information

**Evaporated Cane Juice:** The phrase “sugar is sugar” couldn’t be further from the truth. The reality of health is that most sugars are essential to good metabolic function. Oligosaccharides feed the good bacteria in the gut, digestive fibre is long chains of sugar molecules and 70% of all proteins in the body have sugars attached to them. evaporated cane juice is dried sugarcane juice which not only contains all the good sugars but is a good source of B vitamins, minerals and other micronutrients. Sugarcane juice is listed in the oldest surviving medical text as an effective treatment for diabetes.

**Sugarcane Fibre (sugar removed):** Our Sugarcane is unique and is a source of dietary fibre, in that even though it is mainly insoluble fibre, it acts as a soluble fibre in terms of feeding gut bacteria and producing short chain fatty acids. Unlike many fibres sugarcane fibre comes from the growing stem which means it has lots of micronutrients and also contains unique polycosinols all of which have been shown to improve gut health and blood sugar management.

**Red Sorghum:** Red sorghum sourced from our suppliers is a good source of naturally occurring resistant starch which has been shown to improve gut health, maintain blood sugar levels and reduce cholesterol. Unlike white sorghum, red sorghum is also rich in polyphenols.

**Red Grape Marc:** Red grapes are one of the few foods that could be called superfoods. The seeds are rich in polyunsaturated fats, they have at least 100 polyphenolic compounds (of which resveratrol is the best known) contain diverse fibres and are also a good source of vitamins and minerals. By taking the skins and seeds to make the fibre all of the sugar is removed concentrating the nutritional elements. Grapes have been shown in clinical trials to improve digestive health, reduce inflammation, lower blood sugar levels, and reduce oxidative stress.

**Whole Beetroot Powder:** Beetroot is high in manganese and other minerals which have been shown to help metabolism, as well as natural nitrates which help with blood pressure and flow by relaxing arterial walls. By using whole beet powder rather than juice we also get the benefits of the soluble fibre found in beets.

**Citric & Ascorbic Acids:** Citric acid is a naturally occurring acid found in fruit that gives it the “tangy” flavour. Vitamin C (ascorbic acid) is an essential vitamin for all aspects of health, particularly connective tissue repair. Vitamin C is one of the few vitamins that is known to have benefits when supplemented in foods.

**Potassium Bicarbonate:** Potassium bicarbonate is used to add some potassium to NutriKane and keep the pH at level that is gentle on the digestive tract.

**Australian Grey Sea Salt:** Grey sea salt has a higher concentration of rare minerals. A small amount of sea salt is added as a natural electrolyte boost.

**Vegetable Gums:** Natural vegetable gums are used mainly to improve the mouth feel when added to water, however they have also been shown in clinical trials to benefit gut health.

**Queen Garnet Plum Powder:** Queen Garnet plum is a unique deep purple plum variety developed by CSIRO. It’s anti-inflammatory benefits have robust scientific evidence. It also has a set of polyphenols that are complementary to the antioxidants found in our other ingredients.

**Cholecalciferol:** Vitamin D, Like VitaminC is an essential micronutrient needed for everything from effective brain function to immune system efficiency. The anti-inflammatory properties of vitamin D are well established in science, and most people have at least some vitamin D deficiency. Finally Vitamin D is one of the few micronutrients that have been shown to be beneficial with fortification of the simple supplement.

NutriKane I					
Mineral	mg/serve	RDI Male	RDI Female	RDI Child	RDI Average
Boron	0.03	N/A	N/A	N/A	N/A
Calcium	2.14	0.2%	0.2%	0.2%	0.2%
Chromium	0.06	159.4%	265.7%	223.2%	216.1%
Copper	0.17	9.9%	14.0%	12.9%	12.3%
Iron	2.38	29.8%	13.2%	29.8%	24.2%
Lithium	0.00	N/A	N/A	N/A	N/A
Magnesium	3.41	0.8%	1.1%	1.4%	1.1%
Manganese	0.20	3.7%	4.0%	6.7%	4.8%
Phosphorous	1.13	0.1%	0.1%	0.1%	0.1%
Potassium	237.98	6.3%	8.5%	7.9%	7.6%
Selenium	0.11	150.0%	175.0%	210.0%	178.3%
Sodium	0.28	0.0%	0.0%	0.0%	0.0%
Sulphur	3.85	N/A	N/A	N/A	N/A
Zinc	0.11	0.8%	1.4%	1.8%	1.3%
Vitamin C	100.00	222.2%	222.2%	250.0%	231.5%
Vitamin D	0.02	400.0%	400.0%	400.0%	400.0%
Total extractable polyphenol content	73.83	N/A	N/A	N/A	N/A
Total extractable flavonoid content	42.48	N/A	N/A	N/A	N/A
Extractable antioxidant activity	200.10	N/A	N/A	N/A	N/A
Ferulic acid	16.80	N/A	N/A	N/A	N/A
Octacosanol	1.05	N/A	N/A	N/A	N/A
p-coumaric acid	0.74	N/A	N/A	N/A	N/A
B1	0.00	0.4%	0.4%	0.5%	0.4%
B2	0.00	0.1%	0.1%	0.1%	0.1%
B3	0.00	0.0%	0.0%	0.0%	0.0%
B6	0.00	0.1%	0.1%	0.2%	0.1%
B9	0.00	0.1%	0.1%	0.1%	0.1%
E	0.42	4.2%	6.1%	7.1%	5.8%

Clinical Note: Developed to provide broad-spectrum anti-inflammatory effects. Small-scale trials show benefits in reducing acute inflammation, including post-exercise inflammation.





## NutriKane J

Target: **Support joint health**, connective tissue repair, skin health, and reduce joint discomfort.

Ingredients as listed on the tub: Collagen Peptides, Sugarcane Fibre, Red Sorghum, Turmeric, Maltodextrin, Natural Flavour, Vegetable Gums, Queen Garnet Plum Powder, Ascorbic Acid, Kakadu Plum Powder, Finger Lime Powder, Curcumin, Black Pepper, Monk Fruit Powder

Serving size: 14 g | Serves per tub: 30

### Extended Ingredients Information

**Collagen Peptides:** Collagen is the main protein found in connective tissue and is responsible for the elasticity of our cartilage, skin and digestive tract. Collagen has an unusual amino acid profile which means that in order to repair our own collagen we typically need to consume collagen containing foods. Unfortunately the western diet contains very little collagen. Collagen is also quite hard to digest so using partially digested collagen peptides makes it easier for the body to get the nutrition it needs. Not all collagens are the same, however, the bovine collagen used in NutriKane was selected because there is clinical evidence to show connective tissue repair with a 5g serve.

**Sugarcane Fibre (sugar removed):** Our Sugarcane is unique and is a source of dietary fibre, in that even though it is mainly insoluble fibre, it acts as a soluble fibre in terms of feeding gut bacteria and producing short chain fatty acids. Unlike many fibres sugarcane fibre comes from the growing stem which means it has lots of micronutrients and also contains unique polycosinols all of which have been shown to improve gut health and blood sugar management.

**Red Sorghum:** Red sorghum sourced from our suppliers is a good source of naturally occurring resistant starch which has been shown to improve gut health, maintain blood sugar levels and reduce cholesterol. Unlike white sorghum, red sorghum is also rich in polyphenols.

**Turmeric:** Turmeric is one of the most widely used natural remedies in the world. Originating in South Asia it has been used for 4000 years in the traditional medicines of everywhere it is native. In NutriKane it is included for it's clinically proven ability to aid mild joint pain and improve outcomes for collagen repair

**Maltodextrin:** Maltodextrin is a long chain starch found naturally in many plants. In NutriKane matodextrin is used to help soften off the more harsh flavours of Turmeric.

**Natural Flavour:** Our Australian made natural flavour is used to improve palatabilty without adding nasty chemicals.

**Vegetable Gums:** Natural vegetable gums are used mainly to improve the mouth feel when added to water, however they have also been shown in clinical trials to benefit gut health.

**Queen Garnet Plum Powder:** Queen Garnet plum is a unique deep purple plum variety developed by CSIRO. It's antiinflammatory benefits have robust scientific evidence. It also has a set of polyphenols that are complementary to the antioxidants found in our other ingredients.

**Ascorbic Acid:** Vitamin C (ascorbic acid) is an essential vitamin for all aspects of health, particularly connective tissie repair. Vitamin C is one of the few vitamins that is known to have benefits when supplemented in foods.

**Whole Kakadu Plum Powder:** Kakadu plum has been used by First Nations people for thousands of years for it's healing and antiinflammatory properties. In NutriKane we use it as the best natural source of vitamin C known.

**Whole Finger Lime Powder:** Finger lime powder is a good source of vitamin C as well as a natural source of pectin and citrus antioxidants. In NutriKane it is used to help boost the benefits of collagen

**Curcumin:** Curcumin is one of the main active ingredients in Turmeric. It is also one of the few isolated micronutrients (supplements) that have been shown to have benefits beyond the whole food itself. By adding a small amount of this uniquely bioavailable curcumin we are able to supercharge the benefits of the added Turmeric.

**Black Pepper:** Piperine (one of the active ingredients in black pepper) has been shown to improve the body's ability to absorb micronutrients. It has been particularly been shown to boost curcumin uptake. By using whole pepper we not only get the benefits of piperine but also all of the other hundreds of active compounds found in black pepercorns.

**Monk Fruit Powder:** Monk fruit is a natural nonsugar sweetener that has no known side effects. We use pure monk fruit so no Erythritol is added to our products.

NutriKane J					
Mineral	mg/serve	RDI Male	RDI Female	RDI Child	RDI Average
Boron	0.00	N/A	N/A	N/A	N/A
Calcium	2.14	0.2%	0.2%	0.2%	0.2%
Chromium	0.05	136.0%	226.7%	190.4%	184.4%
Copper	0.01	0.7%	1.0%	0.9%	0.9%
Iron	2.10	26.3%	11.7%	26.3%	21.4%
Lithium	0.00	N/A	N/A	N/A	N/A
Magnesium	1.81	0.4%	0.6%	0.8%	0.6%
Manganese	0.17	3.0%	3.3%	5.5%	4.0%
Phosphorous	1.13	0.1%	0.1%	0.1%	0.1%
Potassium	9.98	0.3%	0.4%	0.3%	0.3%
Selenium	0.11	150.0%	175.0%	210.0%	178.3%
Sodium	0.28	0.0%	0.0%	0.0%	0.0%
Sulphur	1.45	N/A	N/A	N/A	N/A
Zinc	0.06	0.4%	0.8%	1.0%	0.7%
Vitamin C	100.00	222.2%	222.2%	250.0%	231.5%
Vitamin D	0.00	0.0%	0.0%	0.0%	0.0%
Total extractable polyphenol content	17.85	N/A	N/A	N/A	N/A
Total extractable flavonoid content	10.96	N/A	N/A	N/A	N/A
Extractable antioxidant activity	14.32	N/A	N/A	N/A	N/A
Ferulic acid	16.80	N/A	N/A	N/A	N/A
Octacosanol	1.05	N/A	N/A	N/A	N/A
p-coumaric acid	0.74	N/A	N/A	N/A	N/A
B1	0.00	0.4%	0.4%	0.5%	0.4%
B2	0.00	0.1%	0.1%	0.1%	0.1%
B3	0.00	0.0%	0.0%	0.0%	0.0%
B6	0.00	0.1%	0.1%	0.2%	0.1%
B9	0.00	0.1%	0.1%	0.1%	0.1%
E	0.42	4.2%	6.1%	7.1%	5.8%

Clinical Note: Clinical studies on the collagen peptides used in NutriKane J show improvements in skin hydration and flexibility. Consumers report reduced joint discomfort and improved mobility.



# Dementia – The Next Big Challenge

Dementia, a progressive neurodegenerative disorder characterised by cognitive decline, memory loss, and behavioural changes, remains one of the most formidable challenges in modern medicine. Alzheimer’s disease is its most common form, but dementia encompasses a spectrum of conditions with varying pathologies. Traditionally, research has focused on the brain as the epicentre of dementia. However, recent scientific advances have illuminated the critical role of gut health—particularly the gut microbiome—in the development and progression of dementia. The concept of the “gut-brain axis” now emerges at the forefront of neuroscience and gastroenterology, offering new insight into how disturbances in gut health may directly contribute to cognitive disorders.

## The Gut–Brain Axis: An Overview

The gut–brain axis is a bidirectional communication network linking the central nervous system (CNS) with the enteric nervous system (ENS) of the gastrointestinal tract, via the vagus nerve. This axis utilises neural, hormonal, and immunological signalling pathways to maintain homeostasis and regulate bodily functions. Central to this interaction is the gut microbiota, a complex ecosystem of bacteria, viruses, fungi, and other microorganisms residing in the intestines. These microbes have profound effects on host metabolism, immune function, and neural activity.

## Human Studies and Epidemiological Data

Human clinical studies corroborate a direct link between gut health and dementia. Large–scale analyses have identified altered gut microbiota profiles in patients with Alzheimer’s disease and other dementias compared to the healthy population. Certain bacterial taxa, such as increased Firmicutes and decreased Bacteroidetes, are consistently associated with cognitive impairment.

Furthermore, interventions targeting the gut—such as probiotics, prebiotics, and dietary modifications—have demonstrated improvements in cognitive function and reduced neuroinflammation in both animal models and preliminary human trials.

Cognitive, and quality of life improvement was observed in several NutriKane D clinical trials.

In the largest clinical trial of it’s kind (n=54) NutriKane R showed significant improvement in cognitive function, general mood and depression reduction scores in individuals with Spina Bifida after 3 months of use.

In a 100–person trial of constipated individuals, significant improvement in both cognitive function and mood was seen with the consumption of NutriKane R over a median period of 22 days that continued for at least 3 months after use.

In a trial of 51 people with diabetes NutriKane D showed trends in improvement with cognitive function and mood after supplementation and saw significant improvement in their ability to manage their diabetes in part due to cognitive function, mood, and compliance.

In addition, there is growing independent research (describing mechanistic connections) indicating that gut health improvements have a positive outcome for Dementia.

NutriKane positively impacts several mechanisms in the gut–brain axis and subsequently has a potential positive impact on dementia risk.

## The Mechanisms Through Which NutriKane Positively Impacts Cognitive Function

Mechanism in dementia	NutriKane D
Modulating gut microbiome	The fibre (soluble, insoluble, resistant starch) is food and environmental stability for beneficial gut bacteria. NutriKane D has been shown to increase diversity of beneficial bacteria, reduce growth of pro-inflammatory ones. Better fibre = more SCFAs which are generally good for gut barrier and immune regulation.
Reducing systemic/gut inflammation	By improving gut barrier integrity and reducing gut inflammation, possibly reducing leakage of bacterial products/toxins into bloodstream, which can drive neuroinflammation. Also through micronutrients with anti-oxidant/anti-inflammatory potential.
Improving metabolic health	Better blood sugar control and insulin sensitivity: high blood sugar, insulin resistance, metabolic disturbances are known risk factors for cognitive decline. Reducing those reduce one risk factor.
Supporting nutrient supply	Some micronutrients are important for brain health (e.g. antioxidants, vitamins, minerals, etc.). NutriKane provides these in a favourable matrix and could help reduce deficiency risk and support brain resilience.
Improved gut motility / overall digestive health	Constipation, poor gut function may exacerbate poor microbial composition, increase retention of harmful metabolites, etc. Improving regularity helps overall gut health.



# Personalised Health

With the NutriKane range, it is possible to mix and match the product to suit an individual's needs. For example if person A has Blood Sugar level concerns and Joint issues take one serve of J and one serve of D each day.

The guide below is to assist healthcare practitioners recommend one or more NutriKane products if required.

## NutriKane Products (use as %)

Health Conditions	NKD	NKR	NKI	NKJ	Comments
Blood Sugar Control	100	40	60	40	
PreDiabetes	100	40	60	40	
Gestational Diabetes	100	40	60	40	
Type 2 Diabetes	100	40	60	40	
Weight loss	100	80	40	60	2 serves per day
Regularity	80	100	80	80	
Constipation	60	100	40	60	
Bloating	55	100	40	40	
Indigestion	55	100	40	60	
Reduces Inflammation	60	40	100	80	
Healthy Immune Function	50	40	100	60	
Healthy Microbiome/Gut	80	80	100	80	
Reduces Joint Pain	40	40	60	100	
Rejuvenates Connective Tissue	40	40	40	100	
Maintains Healthy Skin	40	40	40	100	

# Regulatory Approvals

NutriKane has been assessed by the TGA and Food Standards Australia New Zealand (FSANZ).

and has been classified as a food that contains traditional and non-traditional, non-novel ingredients, that can be used to improve the nutritional profile a normal diet.

The claims that have so far been approved for NutriKane products include:

- 1

Contributes to healthy bowel function
- 2

Supports gut microbiota / microbiome in healthy adults
- 3

Contributes to the nourishment of good bacteria
- 4

Contributes to the maintenance of intestinal health
- 5

Contributes to the natural cleansing processes of the digestive system & gut
- 6

Contributes to normal stool frequency & regular laxation in healthy adults
- 7

Contributes to digestive health & wellness
- 8

Contributes to the maintenance of blood glucose levels
- 9

Contributes to the enhancement of satiety / feelings of fullness / reduced feelings of hunger
- 10

Contributes to the maintenance of dietetic health & wellness
- 11

Suitable for Low FODMAP diets with uniform fermentation rate of prebiotic fibre
- 12

Contributes to the normalisation of dietary cause bloating via uniform fermentation & gas production compared to rapid gas forming prebiotics in healthy adults.
- 13

Contributes to the normalisation of aspects of dietary cause indigestion & gas compared to rapid gas forming prebiotics in healthy adults.
- 14

Promotes the growth of non-inflammatory fibre digesting bacteria & synthesis of Short Chain Fatty Acids (SCFAs).





## Quality Control

Though NutriKane is regulated as a food, MediKane partners with TGA certified packaging companies for manufacture. All facilities use FSANZ/TGA approved manufacturing processes and Food grade packaging and all products are packaged to GMP standards.

As part of our ongoing commitment to quality, ingredients are independently tested for safety and efficacy and in house trials are constantly performed to ensure the products perform as required.

## New Research/Research Planned

MediKane is committed to the advancement of Food-as-Medicine through continuous research and development.

### New Research/Trials

A focus will be to expand our understanding of the benefits of gut health to cognitive function. All our trials include quality of life and cognitive function as secondary endpoints. MediKane is developing a specific product for cognitive function that will include scientifically backed ingredients to boost the gut health benefits found in NutriKane. This product is expected to undergo clinical trials as part of our 2026–2029 trial program

### Current and Planned Trials

- A trial program to show benefits of NutriKane products to companion animals for joint pain and intestinal health.
- A trial using NutriKane D with people who have continuous glucose monitors to get a better picture of the minute by minute interactions.
- Work with qualified health care professionals to better understand the benefits of NutriKane to mental and cognitive health. Future clinical trials are being developed.
- Trials to Expand our knowledge of observed benefits to liver health.
- Trials to Expand our knowledge of observed Equine benefits.

## Testimonials



I've been recommending these products for the past 10 years now, in my Health & Lifestyle consulting practice, with consistent results for a wide range of chronic health issues.

It's totally changed the way I previously approached things, and it's one of the base products I use for every client, because of such reliable results.

I have clients who have sought help with elevated blood glucose levels; chronic gut issues; arthritic joint problems; weight loss challenges; post exercise recovery; menopausal issues for poor sleep patterns and brain fog, and in the last couple of years, Long Covid issues.

In every case they've found enough relief to continue using the products on a regular basis, incorporating them into their daily regime in line with the Food-as-Medicine concept that underlies the philosophy of NutriKane.

I would highly recommend any practitioner consider exploring the science behind these products, and integrate them into their practice.

**Patricia Reed RN**  
Fellow ATMS  
*Total Health Options*



We have recently become a supplier of NutriKane D in a small rural town in WA out of a health food retail shop. As of the time of writing this, we have not been able to keep up with supply to our small constituents who are currently using the product.

Word of mouth is growing for 2 main reasons:  
The product works! It does what it claims it does.  
It is affordable.

We have one customer who has bought this product for her sister who has diabetes and has always had difficulties keeping it manageable. Almost immediately she saw the change and felt the benefits. Her sister has told me she cannot be without NutriKane D. Her sister was so impressed with the results she has been taking NutriKane D for her own health and has noticed a positive difference to her overall health.

Another customer of ours has reported to me that she has been on an 800 calorie diet for years and has been unable to lose the excess weight she's been carrying around. After just 2 weeks of taking the NutriKane D she noticed a change. Her continued use of the product in a very short time had her showing very proudly to me that her clothes are becoming a little loose on her already. She is not only thrilled about the weight loss; she is also thrilled about becoming healthier the longer she is using the product. Her words of advice to me are that every customer should know that it is better to use cold water from the fridge to mix up the powder. This somehow reduces the chalky taste in your mouth and is a lot more pleasant to swallow.

We will be continuing to supply NutriKane D to our current customers, and as word of mouth spreads, are prepared supply to what will be an undoubtedly growing demand and market for this product.

As a supplier the company have been wonderful to deal with from the very first contact. Price, postage and communication have been of a very high standard. If you are considering stocking this product, I can recommend the company as they will be professional and proficient to you and your customers will love the benefits from NutriKane D.

**Karen**  
On behalf of Faye McBeath (Proprietor/Manager)  
*Goodlife Narrogin*





# References

Amatya, B., et al., *Evaluation of the structured bowel management program in inpatient rehabilitation: a prospective study*. Disabil Rehabil, 2015: p. 1–8.

Khan, F., et al., *Rehabilitation outcomes in persons with spina bifida: A randomised controlled trial*. J Rehabil Med, 2015.

Lee, S.Y., K. F *Efficacy, and B. Amatya, Efficacy of Dietary Sugarcane Product on Bowel Function and Blood Sugar Level in Adult Diabetic Patients: A Randomised Controlled Trial*. 2018. 5–2018.

Beckett, J.M., et al., *Anti-Heartburn Effects of Sugar Cane Flour: A Double–Blind, Randomized, Placebo–Controlled Study*. Nutrients, 2020. 12(6).

Walters, R.L., et al., *Effects of two types of dietary fibre on faecal steroid and lipid excretion*. Br Med J, 1975. 2(5970): p. 536–8.

Holt, S., et al., *A bioflavonoid in sugar cane can reduce the postprandial glycaemic response to a high–GI starchy food*. Vol. 12 Suppl. 2003. S66.

Miao, L., *Sugarcane bagasse dietary fiber as an adjuvant therapy for stable chronic obstructive pulmonary disease: a four–center, randomized, double–blind, placebo–controlled study*.(Abstracts: *The Journal of Traditional Chinese Medicine*). *The Journal of Chinese medicine*, 2016(112): p. 72.

Gu, X., *Effects of Grain Sorghum Muffin on Blood Glucose and Insulin Responses in Prediabetic Men*. 2014, ProQuest Dissertations Publishing.

Poquette, N.M., X. Gu, and S.O. Lee, *Grain sorghum muffin reduces glucose and insulin responses in men*. Food Funct, 2014. 5(5): p. 894–9.

Prasad, M.P., et al., *Glycaemic index and glycaemic load of sorghum products*. J Sci Food Agric, 2015. 95(8): p. 1626–30.

Stefoska–Needham, A., et al., *Flaked sorghum biscuits increase postprandial GLP–1 and GIP levels and extend subjective satiety in healthy subjects*. Mol Nutr Food Res, 2016. 60(5): p. 1118–28.

Simnadis, T.G., L.C. Tapsell, and E.J. Beck, *Effect of sorghum consumption on health outcomes: a systematic review*. Nutr Rev, 2016. 74(11): p. 690–707.

Chong, R.W.W., *Investigating the influence of dietary fibre on intestinal health, in Molecular sciences*. 2019, Macquarie University. p. 258.

Hewawasam Gamage, H.K.A., *Investigating the impact of dietary fibre on the gut microbiota*. 2017, Macquarie University: Sydney, Australia.

Shinde, T., et al., *Synbiotic Supplementation Containing Whole Plant Sugar Cane Fibre and Probiotic Spores Potentiates Protective Synergistic Effects in Mouse Model of IBD*. Nutrients, 2019. 11(4).

Shinde, T., et al., *Modulating the Microbiome and Immune Responses Using Whole Plant Fibre in Synbiotic Combination with Fibre–Digesting Probiotic Attenuates Chronic Colonic Inflammation in Spontaneous Colitic Mice Model of IBD*. Nutrients, 2020. 12(8).

Loureiro, B.A., et al., *Sugarcane fibre may prevents hairball formation in cats*. J Nutr Sci, 2014. 3: p. e20.

Fischer, M.M., et al., *Fiber fermentability effects on energy and macronutrient digestibility, fecal traits, postprandial metabolite responses, and colon histology of overweight cats*. J Anim Sci, 2012. 90(7): p. 2233–45.

Rogues, J., et al., *Reduction of cat voluntary feed intake in the short–term response to the sugar cane fibre supplementation*. Journal of Applied Animal Nutrition, 2020. 8: p. 1–12.

Teshima, E., et al., *Influence of type of starch and feeding management on glycaemic control in diabetic dogs*. J Anim Physiol Anim Nutr (Berl), 2021.

Wang, Z.Q., et al., *Comparing the effects of nano–sized sugarcane fiber with cellulose and psyllium on hepatic cellular signaling in mice*. Int J Nanomedicine, 2012. 7: p. 2999–3012.

Wang, Z.Q., et al., *Effects of Dietary Fibers on Weight Gain, Carbohydrate Metabolism and Gastric Ghrelin Gene Expression in High Fat Diet Fed Mice*. Metabolism, clinical and experimental, 2007. 56(12): p. 1635–1642.

Morgan, B., et al., *Dietary fibre and sterol metabolism in the rat*. British journal of nutrition, 2007. 32(2): p. 447–455.

Ge, Y.F., et al., *The resistant starch from sorghum regulates lipid metabolism in menopausal rats via equol*. J Food Biochem, 2020. 44(8): p. e13295.

Carr, T.P., et al., *Grain sorghum lipid extract reduces cholesterol absorption and plasma non–HDL cholesterol concentration in hamsters*. J Nutr, 2005. 135(9): p. 2236–40.

Calabrò, S., et al., *Fermentation Characteristics of Several Carbohydrate Sources for Dog Diets Using the In Vitro Gas Production Technique*. Italian Journal of Animal Science, 2013. 12(1): p. e4–e4.

Bucio–Noble, D., et al., *Polyphenol extracts from dried sugarcane inhibit inflammatory mediators in an in vitro colon cancer model*. J Proteomics, 2018. 177: p. 1–10.

Gamage, H., et al., *Fiber Supplements Derived From Sugarcane Stem, Wheat Dextrin and Psyllium Husk Have Different In Vitro Effects on the Human Gut Microbiota*. Front Microbiol, 2018. 9: p. 1618.

Ashley, D., et al., *Impact of Grain Sorghum Polyphenols on Microbiota of Normal Weight and Overweight/Obese Subjects during In Vitro Fecal Fermentation*. Nutrients, 2019. 11(2): p. 217.

Oh, K.K., M. Adnan, and D.H. Cho, *Network pharmacology of bioactives from Sorghum bicolor with targets related to diabetes mellitus*. PLoS One, 2020. 15(12): p. e0240873.

Agah, S., et al., *Complementary cereals and legumes for health: Synergistic interaction of sorghum flavones and cowpea flavonols against LPS–induced inflammation in colonic myofibroblasts*. Mol Nutr Food Res, 2017. 61(7).

Farrar, J.L., et al., *A novel nutraceutical property of select sorghum (Sorghum bicolor) brans: inhibition of protein glycation*. Phytother Res, 2008. 22(8): p. 1052–6.

Abduldileep, S., et al., *A bioactive polypeptide from sugarcane selectively inhibits intestinal sucrase*. International journal of biological macromolecules, 2020. 156: p. 938–948.

Ji, J., et al., *Antioxidant and Anti–Diabetic Functions of a Polyphenol–Rich Sugarcane Extract*. Journal of the American College of Nutrition, 2019: p. 1–11.

Seo, D.–o. and D.M. Holtzman, *Current understanding of the Alzheimer’s disease–associated microbiome and therapeutic strategies*. Experimental & Molecular Medicine, 2024. 56(1): p. 86–94.

O’Riordan, K.J., et al., *The gut microbiota–immune–brain axis: Therapeutic implications*. Cell Rep Med, 2025. 6(3): p. 101982.

Park, J.C., et al., *Beyond the gut: decoding the gut–immune–brain axis in health and disease*. Cellular & Molecular Immunology, 2025.

Carabotti, M., et al., *The gut–brain axis: interactions between enteric microbiota, central and enteric nervous systems*. Annals of gastroenterology, 2015. 28(2): p. 203–209.

Kinney, J.W., et al., *Inflammation as a central mechanism in Alzheimer’s disease*. Alzheimers Dement (N Y), 2018. 4: p. 575–590.

Obrenovich, M.E.M., *Leaky Gut, Leaky Brain?* Microorganisms, 2018. 6(4).

Vogt, N.M., et al., *Gut microbiome alterations in Alzheimer’s disease*. Scientific Reports, 2017. 7(1): p. 13537.

Braniste, V., et al., *The gut microbiota influences blood–brain barrier permeability in mice*. Sci Transl Med, 2014. 6(263): p. 263ra158.

Silva, Y.P., A. Bernardi, and R.L. Frozza, *The Role of Short–Chain Fatty Acids From Gut Microbiota in Gut–Brain Communication*. Front Endocrinol (Lausanne), 2020. 11: p. 25.

Dalile, B., et al., *The role of short–chain fatty acids in microbiota–gut–brain communication*. Nat Rev Gastroenterol Hepatol, 2019. 16(8): p. 461–478.

Harach, T., et al., *Reduction of Alzheimer’s disease beta–amyloid pathology in the absence of gut microbiota*. 2015.

Harach, T., et al., *Reduction of Abeta amyloid pathology in APPPS1 transgenic mice in the absence of gut microbiota*. Scientific Reports, 2017. 7(1): p. 41802.

Bercik, P., et al., *The intestinal microbiota affect central levels of brain–derived neurotropic factor and behavior in mice*. Gastroenterology, 2011. 141(2): p. 599–609, 609.e1–3.

Zhuang, Z.Q., et al., *Gut Microbiota is Altered in Patients with Alzheimer’s Disease*. J Alzheimers Dis, 2018. 63(4): p. 1337–1346.

Kim, C.S., et al., *Probiotic Supplementation Improves Cognitive Function and Mood with Changes in Gut Microbiota in Community–Dwelling Older Adults: A Randomized, Double–Blind, Placebo–Controlled, Multicenter Trial*. J Gerontol A Biol Sci Med Sci, 2021. 76(1): p. 32–40.

Wang, X., Y. Qi, and H. Zheng, *Dietary Polyphenol, Gut Microbiota, and Health Benefits*. Antioxidants (Basel), 2022. 11(6).

Fu, J., et al., *Dietary Fiber Intake and Gut Microbiota in Human Health*. Microorganisms, 2022. 10(12).

Maki, K.A., M.N. Sack, and K.D. Hall, *Ultra–processed foods: increasing the risk of inflammation and immune dysregulation?* Nature Reviews Immunology, 2024. 24(7): p. 453–454.

Khatoon, S., et al., *Effects of gut microbiota on neurodegenerative diseases*. Frontiers in Aging Neuroscience, 2023. Volume 15 – 2023.

Jain, A., S. Madkan, and P. Patil, *The Role of Gut Microbiota in Neurodegenerative Diseases: Current Insights and Therapeutic Implications*. Cureus, 2023. 15(10): p e47861.



# NutriKane







1300 889 962 | [admin@medikane.com.au](mailto:admin@medikane.com.au)

[nutrikane.com.au](http://nutrikane.com.au)

