



# happify

HEALTH • EARTH • HAPPINESS

**Probiotics - Prevent the bad guys outnumbering the good guys.**

**Untangling You - How can I be grateful when I feel so Resentful.**

**The Natural Benefits of Plant Vitamins over Synthetic Vitamins.**

**The Meditative power of Nature.**

**Clothing Matters: Is your clothing harming you and others?**

**Eliminate Chemical Calories. Synthetic chemicals make you fat.**

**How to solve the worlds most wicked problems.**

**Decoding todays skin care ingredients.**



# **P R O B I O T I C S**

**P R E V E N T   T H E   B A D   G U Y S  
O U T N U M B E R I N G   T H E   G O O D   G U Y S**



## **NOT ALL PROBIOTICS SUPPLEMENTS ARE CREATED EQUAL**

As far back as records take us, man has used the art of fermentation to improve the storage time and beneficial properties of foods.

Foods with a short storage time, particularly the milk from camels, buffalo, goats, sheep and cows, were fermented naturally to produce an acidic-tasting drink.

History suggests that some of the first yoghurts were produced in goatskin bags, draped over the backs of camels in the hot deserts of North Africa. Temperatures reaching 40 C (110 F) were ideal for lactic acid-producing bacteria to go to work. Since that time, many cultures have fermented many types of food in an effort to develop new flavours and improve shelf life.

Fermented foods have a long history of nutritional and therapeutic benefits, with many of the long-lived cultures around the world using some form of fermented food to achieve longevity and maintain good health. The famous Hunza of Kashmir and the Georgians of the former Soviet Union have been highlighted for their amazing history of longevity. Both cultures include fermented foods as a significant part of their diet.

It is not uncommon for men over 100 years old to participate in equine activities such as polo, or for women to work in the farm fields at over 100 years of age. Fermented foods such as yoghurt, fermented cheese, miso, tempeh and sauerkraut (fermented cabbage) provide beneficial bacteria to the digestive system as long as they haven't been pasteurised.

There is a growing weight of scientific evidence that demonstrates how fermented foods play a significant role in human health.

## **HEALTH AND WELL-BEING IN THE BALANCE**

It is generally accepted that the bacterial community resident in the human intestinal tract has a major impact on gastrointestinal function and thereby on human health and well-being.

Chronic diseases associated with modern lifestyle habits are usually related to immune system malfunction. By increasing the population of the beneficial lactobacillus bacteria, the health of the digestive system can be improved. A healthy intestinal tract should consist of at least 85 per cent of these 'friendly' bacteria to prevent over-colonisation of pathogenic, disease-causing micro-organisms.

Studies have also shown that maternal and neonatal diet may have long-lasting effects on the development of chronic adulthood conditions, such as insulin resistance, type 2 diabetes, obesity, dyslipidaemia, hypertension, and cardiovascular disease. These studies have also pointed to the benefits of probiotics in the prevention of these diseases.

## **MEDICINAL BENEFITS OF PROBIOTICS**

Medical research shows that probiotics:

- Improve digestion
- Increase nutrient assimilation
- Strengthen the immune system
- Increase resistance to yeast infections
- Manufacture B-complex vitamins (biotin and vitamin K)
- Relieve symptoms of irritable bowel syndrome (IBS)
- Detoxify toxins and chemicals in the gut
- Maintain correct pH balance in the vaginal ecosystem
- Reduce high blood pressure
- Reduce cholesterol in the blood
- Produce cancer- or tumour-suppressing compounds
- Improve behaviours associated with autism and ADHD in children
- Protect liver function
- Decrease toxic overload from pathogenic bacteria
- May reduce risk of bowel cancer
- Assist elimination and detoxification
- Improve gastrointestinal wind
- Reduce symptoms of lactose intolerance
- Decrease the prevalence of allergies

However, to attain the health benefits attributed to lactobacilli fermented foods, live active bacteria need to be consumed on a regular basis.

## DYSBIOSIS EXPLAINED

*Dysbiosis (when the bad guys outnumber the good guys)*

Beneficial bacteria are essential for digestion, assimilation of nutrients, and maintenance of the lining of the intestinal tract.

When the balance of bacteria is disrupted and harmful bacteria outnumber beneficial bacteria, this is called dysbiosis.

Dysbiosis is associated with increased gut permeability (leaky gut) and manifests in symptoms such as flatulence, bloating, diarrhoea or constipation, vomiting, reflux and colic (in infants).

## DYSBIOSIS WARNING SIGNS

Warning signs of dysbiosis (bacterial imbalance) may include:

- Allergies and food sensitivities
- Frequent colds, flu or infections
- Difficulty losing weight
- Sugar/carbohydrate cravings
- Frequent fatigue
- Poor concentration
- Frequent constipation or diarrhoea
- Faulty digestion, acid reflux and other gut disorders
- Sleeping poorly, night sweats
- Painful joint inflammation, stiffness
- Bad breath, gum disease and dental problems
- Chronic yeast problems
- Acne, eczema, skin and foot fungus
- Extreme menstrual or menopausal symptoms

## DYSBIOSIS CAUSES

*Causes of dysbiosis (things that kill good bacteria)*

The number of 'good' bugs in your digestive system can be imbalanced by a wide range of factors including:

- Excessive stress (both psychological and physical)
- Exposure to radiation
- Drinking fluoridated / chlorinated water
- Poor diet (low fibre, high fat, processed foods)
- Excessive alcohol consumption
- Carbonated drinks
- Antibiotic use
- Contraceptive pills
- Steroidal and hormonal drugs

## 4 KEY ATTRIBUTES OF EFFECTIVE PROBIOTICS

Not all probiotic supplements are created equal. An effective probiotic product should contain bacteria that can:

1. Maintain its high and active count through processing and storage until consumption.
2. Tolerate the acid conditions of the stomach.
3. Tolerate bile salts.
4. Increase its own numbers in the bowel and decrease the numbers of competing bacteria.





## **PROBITICS AND MEDICAL CONDITIONS**

### ***Probiotics and Antibiotics***

Probiotic supplementation is critical for the prevention of antibiotic-induced conditions (Candida, urinary tract infections, and diarrhoea). Antibiotics destroy friendly gut bacteria along with the harmful bacteria.

Thus, taking probiotics after antibiotic therapy will restore gut flora to a healthy balance.

Lactic acid-producing bacteria alter the pH of the large intestine, making it inhospitable to undesirable bacteria, moulds, mould spores and yeast, particularly Candida.

### ***Probiotics and Autism***

A medical study on probiotics for autism has proven so successful that the study 'failed', according to a New Scientist report on September 9, 2006. The study, by Prof. Glenn Gibson at Reading University, UK, found that autistic children vastly improved their concentration and behaviour when given probiotics, or 'friendly bacteria'.

It involved 40 autistic children, aged 4 to 8, half of whom were given the probiotic bacteria *L. plantarum*, while the other half received a 'dummy' probiotic.

It was supposed to have been a blind study, where the participants were not told who were taking the actual probiotics and who were taking placebos or 'dummy' medicine.

As part of this probiotics for autism study, parents were asked to record their children's mood and behaviour in a diary.

The results were too obvious. Parents whose autistic children were taking the actual probiotics saw such great improvements in their children's behaviour that they knew their children were taking the real thing.

Thus, problems arose during the 'crossover' point of this probiotics for autism study, when the two groups were supposed to switch medicines.

When it came time for the families to switch, the families who had been receiving the actual probiotics refused to change over to the placebo.

As a result, the study experienced an astronomical drop-out rate that caused the study eventually to fail. Many of the parents whose children were taking the actual probiotics refused to make the switch, as they wanted their autistic children to continue to improve. One parent said it was 'heartbreaking' to have to stop their child taking it.



### ***Probiotics and Ageing***

Recent studies suggest an association between inflammation status and the presence of chronic disease in the elderly. Probiotics might improve inflammatory conditions in the elderly.

Differences in the gut bacteria may be related to the progression of diseases and frailty in the elderly population. It appears possible to extend healthy ageing and lifespan by manipulating the complex ecosystem of gut bacteria. Consumption of probiotics has been shown to improve the quality of life in the elderly.

### ***Probiotics and Allergies / Eczema / Dermatitis***

Gastrointestinal microflora dominated by lactic acid bacteria are crucial for the maturation and proper functioning of the human immune system. There is very promising evidence to recommend the addition of probiotics for prevention and treatment of allergic diseases, especially atopic dermatitis.

Clinical improvement in allergic rhinitis and eczema has been reported too. Studies have also shown a significant risk reduction for atopic eczema in children aged 2-7 years through the administration of probiotics during pregnancy, and they have demonstrated the efficacy of probiotics in the treatment of paediatric atopic dermatitis.

### ***Probiotics and Anxiety / Depression***

Research suggests that bacteria in the GI tract can communicate with the central nervous system. Probiotics could be proposed as a novel strategy as an adjuvant for psychiatric treatment of anxiety and depression.

### ***Probiotics and Colon Cancer***

Probiotics have the potential to significantly impact the development, progression and treatment of colorectal cancer and may play a valuable role in cancer prevention. Studies point out the inverse relationship between the consumption of probiotics and prebiotics in colon cancer diagnosis.

### ***Probiotics and Cholesterol / Hypertension***

Studies have shown that probiotics were found to improve certain metabolic disorders such as hypertension and that a diet rich in probiotics decreases total cholesterol and LDL cholesterol concentration in plasma for people with high, borderline high and normal cholesterol levels.

### ***Probiotics and Infections***

Lactobacillus acidophilus and Lactobacillus casei have demonstrated antibacterial activity against methicillin-resistant Staphylococcus aureus (MRSA). Probiotics minimise the postoperative occurrence of infectious complications.

Probiotics may be beneficial for preventing acute upper respiratory tract infections and offer a potential new means to prevent urogenital infections and help maintain a healthy vaginal ecosystem.

### ***Probiotics and Irritable Bowel Syndrome and Other Gastrointestinal Diseases***

Bacterial probiotic therapy shortens the duration of acute diarrhoeal illness in children. Probiotics may offer a safe and effective method to prevent traveller's diarrhoea. They may also be a safe and effective option for the relief of abdominal pain and bloating for patients with irritable bowel syndrome. In addition, probiotic treatment is effective in maintaining remission in ulcerative colitis. It is probable that probiotics may be the best future treatment for mild-to-moderate uncomplicated attacks of acute diverticulitis.





### ***Probiotics and Leaky Gut / Food Allergies***

In modern society, many of the beneficial and necessary bacteria have been destroyed in the majority of people's digestive tracts due to food intolerances, certain drug ingestion, bacterial/viral infections, the modern lifestyle and stress.

By promoting proper food digestion, friendly bacteria aid in preventing food allergies.

If digestion is poor, the activity of intestinal bacteria on undigested food may lead to excessive production of histamine, which triggers allergic symptoms. This leads to digestive problems and leaky gut, where the gut lining becomes inflamed.

This inflammation creates gaps in the gut wall, which allows macro food particles and other foreign microbes to enter the body and trigger an immune response, resulting in allergies, further exacerbating food intolerances, and possibly triggering autoimmune diseases.

Probiotics decrease intestinal permeability and improve the ability to effectively digest, process, and absorb nutrients from foods.

Probiotics have been proven to enhance immunity, fight gut infections and reduce production of toxic by-products in the bowel.

### ***Probiotics and Liver Function***

Short-term oral supplementation with probiotics is associated with restoration of the bowel flora and greater improvement in alcohol-induced liver injury.

#### ***Probiotics and Obesity / Metabolic Syndrome***

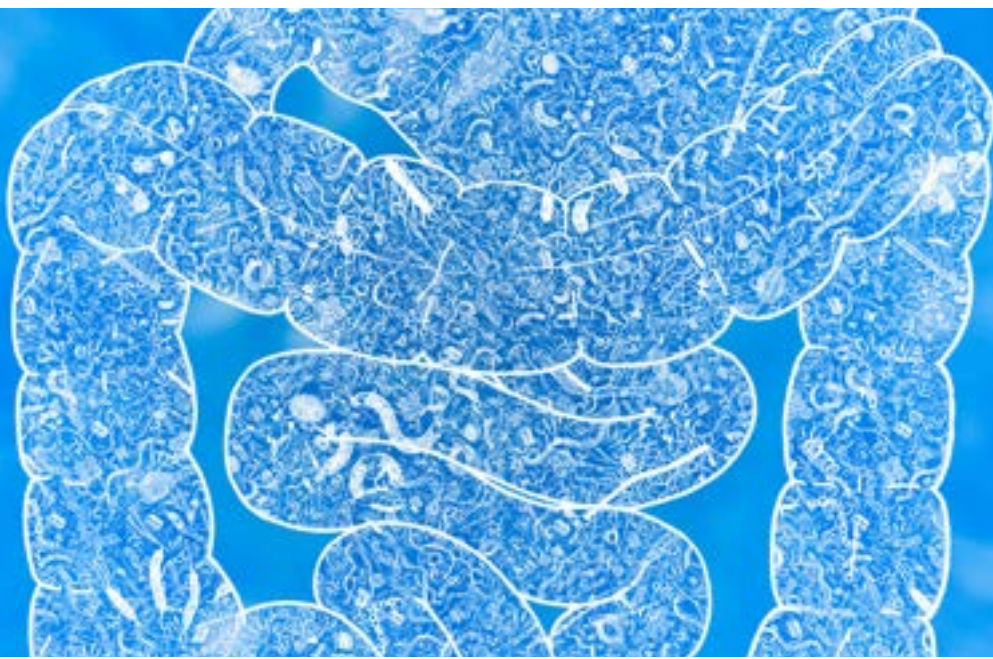
New findings explain how gut bacteria can be involved in the development, or control of, obesity and associated inflammation.

The number of certain probiotic bacteria is inversely related to fat mass development, diabetes, and/or the low levels of inflammation associated with obesity. Future treatments for obesity may involve modulation of gut bacteria using probiotics.

### ***Probiotics and Rheumatoid Arthritis***

Treatment with *Bacillus coagulans*, a probiotic bacteria, appears to be safe and effective for patients suffering from rheumatoid arthritis.

In the appendices of this magazine there are references to 77 medical studies supporting the amazing health benefits of probiotics.





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20%**

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The result of 20 years research, the probiotics in In-Liven have been subjected to a large number of stressors including heat, cold, chlorine, salt, alcohol and many preservatives found in food, resulting in a “super family” of very strong PROBIOTIC Lactobacilli unlike any others found in the world today.



## UNTANGLE YOU

How can I feel grateful, when I  
feel so much resentment

Dr Kerry Howells

When we reflect on what we are grateful for and really bring this into our hearts, we are able to access an enormous power that can help us improve our wellbeing and grow our resilience. Indeed research shows that gratitude leads to more refreshing sleep and improved heart health and immune system functioning, and also improves mood, lowers fatigue, and can protect against burnout.

We can access what I call 'deep gratitude' when we are motivated to give back in some way out of acknowledgment for what we receive. In this sense, gratitude moves from being just a feeling or a way of thinking to becoming an action. We change our focus from what *we are grateful for* to *who we are grateful to*.

When we express our gratitude to others in a meaningful and authentic way, we bring about a certain kind of recognition that only gratitude can achieve. This in turn greatly enhances not only our physical and emotional wellbeing, but also our relational wellbeing.

## **The impact of difficult relationships**

But what happens when we can't access this gratitude?

In my past 25 years of researching and teaching gratitude, the most prevalent question that arises from my participants, often with pain in their eyes, is how they can possibly be grateful when they feel they have been wronged by someone or bitterly disappointed by them in some way.

In terms of our health and happiness, this is probably one of the most important questions they could be asking. Research shows that difficult relationships lead to a 34% increased risk of heart problems, and are also a major cause of chronic stress, hypertension, inflammation and poor immune function.

No matter how hard we try to let it go and be the 'bigger person', sometimes it's impossible to find gratitude in a difficult relationship. We recognise that it's impossible because what we are actually feeling is the very opposite of gratitude: resentment – that stuck feeling that festers and causes us to ruminate over a perceived injustice. Whereas gratitude awakens us to what we have been given, resentment makes us linger over what we feel has been taken away from us.

### **Everyday resentment**

We are not talking about traumatic resentments here, but what I call the 'everyday resentments' which we tend to suppress or put up with in our lives. These don't get much conscious attention because we often feel ashamed or pressured to be a 'grateful person' who only has positive thoughts about others.

We might also feel that we should have moved on because the grievance seems trivial. Maybe we feel the need to keep the peace or the status quo.

No doubt you have experienced everyday resentments in your life: a sibling you feel was favoured by your parents; a neighbour who won't deal with their barking dog; a workmate who is promoted ahead of you; a partner who doesn't do their share of the housework or looking after the children.

These everyday resentments keep simmering away, robbing us of joy and wreaking havoc on our health, relationships and workplaces. They also often dominate our decision-making.

### **Moving from resentment and towards gratitude**

Firstly, this is not about replacing resentment with gratitude. That would be just like putting a positive veneer over a situation that is crying out for attention.





However, understanding that gratitude and resentment are opposite states of being can help us see that every time we move away from resentment, we are making a move towards gratitude. As such, identifying our resentment and trying to do something about it is an important and powerful gratitude practice.

However, to take up this kind of gratitude practice is no small feat. Such a move often requires humility and courage. We are outsmarting resentment, which runs by the logic that usually tells us we should wait around (often for years) for the other person to do the work and the apologizing.

In actual fact the person who is most harmed by our resentment is ourselves. As Nelson Mandela famously said, 'Resentment is like drinking poison, and then hoping it will kill your enemies.' Indeed[], the other person may not even be aware of the pain they have caused us.

#### **Gratitude practices for addressing resentment**

I changed to 'indeed' here to avoid repeating 'in fact' twice in the same paragraph.





In the context of moving from resentment towards gratitude, it's important to remember that gratitude is a practice in which we are not trying to be perfect, and we are certainly not trying to be grateful in all the difficult relationships we are facing.

The following are just a few examples of gratitude practices that are relevant to moving from resentment and towards gratitude. Many more are offered in my book, *Untangling you: How can I be grateful when I feel so resentful?*

### **Self-gratitude**

One of the most contentious areas of considering gratitude a way of being is in expressing it to those who have harmed us, or expressing it in inequitable or unjust situations that cry out for our concern and action.[1] If we are not able to express gratitude in those situations, does that mean that we should give up trying to practise gratitude?

We should never forget gratitude to self in these kinds of situations. Self-regard, or what we might also call self-love, helps us establish a clearer position on how we wish to be treated by others.

This is an important practice, allowing us to build our own strength and resilience first so we are able to address the pain others may have caused us. This sentence is a bit unclear. Does this revision accurately express the intended meaning?

One of the most contentious areas of considering gratitude a way of being is in expressing it to those who have harmed us, or expressing it in inequitable or unjust situations that cry out for our concern and action.

### **Identifying resentment**

Just by giving those hurtful, murky, stuck[1] feelings a name—resentment—and recognising its damaging effects on our wellbeing and those around us, we can be more empowered and motivated to do something about it.

Although it may take some time, we can gain a greater sense of objectivity and a greater sense of agency in a situation because we see that we can choose our response in moving forward. This opens the door for us to remember what we were grateful for about this person in the past. Consider changing to "persistent"

### **Choosing one difficult relationship at a time**

If we embark on a conscious practice of gratitude, we are more likely to give priority to relationships. This includes those relationships where we find it hard to express gratitude, as this is where the greatest impact can be made, and often where the greatest personal growth can occur.

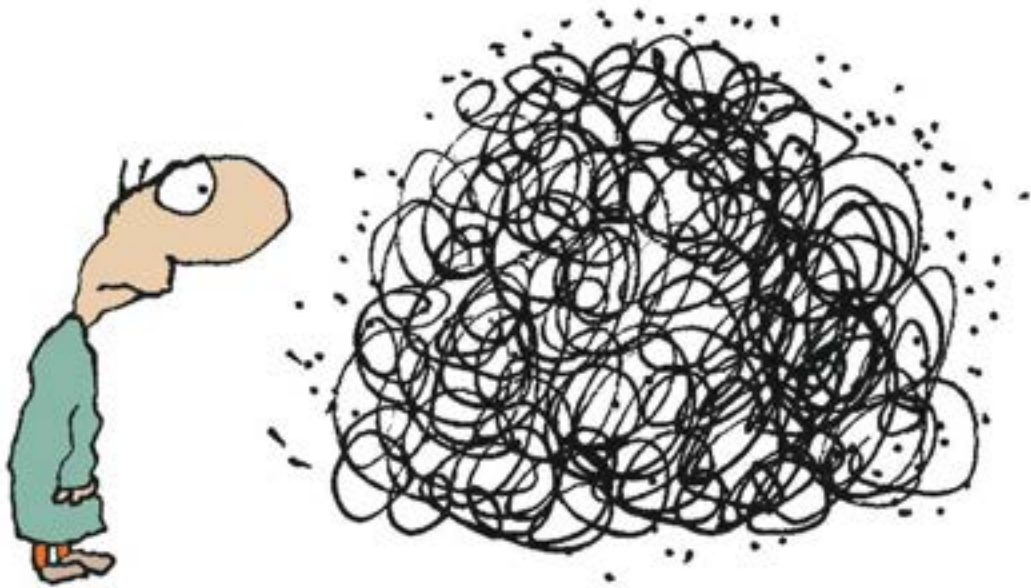
To start, we might take one difficult relationship where we recognise feelings of resentment and make this our focus for a period of time. It is best to choose a situation just a little out of our comfort zone rather than one that may require professional help.

If we can start to address our resentment in these ways, gratitude can play its important role in giving us better health, peace and harmony, both in our lives and our community.





# Untangling you



*How can I be grateful  
when I feel so resentful?*

Dr Kerry Howells

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## **THE NATURAL BENEFITS OF PLANT BASED VITAMINS OVER SYNTHETIC VITAMINS**

Supplements can be good for your health and even reduce your risk of death. I recommend taking them. However, you need to take the RIGHT sort of vitamins for them to benefit your health.<sup>1</sup>[JB1]

If you're taking the wrong type of supplements you could be doing yourself more harm than good. The most important thing to know is the difference between natural vs synthetic vitamins.

And that's why we're here!

Here's an overview of everything you need to know about natural vs synthetic vitamins, so you have the knowledge to make the right choice for your body. [JB1]Consider using superscript numbers to mark references; this will make some of the text less cluttered and easier to read.



### ***Natural vs synthetic vitamins: What's the difference?***

So, what IS the difference between natural vs synthetic vitamins?

To cut a long story short:

·'Natural' vitamins are those which are identical to the forms found in our food or body.

·'Synthetic' vitamins are made in a laboratory – these are otherwise known as 'man-made'. They tend to be a slightly different-shaped molecule to the natural version.

It's important to remember that 'natural' is not a protected term. Anyone can claim their supplements or products are natural.

But in the context of natural vs synthetic vitamins, it's important to recognise the difference. Your health depends on it.

### ***Which are better for your body: natural or synthetic vitamins?***

Naturally you're now asking yourself: 'OK, so which are better for me – natural or synthetic vitamins?

### ***Why are natural vitamins better than synthetic?***

#### **Bioavailability**

This means how well you're able to absorb the nutrient.

Synthetic vitamins tend to have a lower bioavailability compared to natural forms of nutrients.

But synthetic vitamins can actually be TOO easy to absorb – which can also have negative health effects. (More on that later!)

## Potency

Potency means how much of an effect the vitamin has on your body.

For instance, many synthetic forms of supplements may be easily absorbed but have a weak effect on your body.

## Why?

Synthetic vitamins usually do not have the exact same-shaped molecule as the natural form. This means they may bind more weakly to receptors or enzymes – meaning you might need a higher dose to have the same effect as a natural form.

## Formulation

This is how the vitamins are 'packaged' and delivered to your body.

Natural vitamins may be delivered in a whole food form, while synthetic vitamins are usually isolated.

## 5 Common synthetic vitamins to avoid

The majority of supplements use synthetic forms of nutrients.

Synthetic vitamins tend to be:

- Cheaper
- Easier to produce in high quantities
- Smaller due to being isolated from other nutrients, hence fitting into smaller supplement pills

But how do you spot a synthetic vitamin when you're next buying your supplements?

It's not always simple to distinguish between natural vs synthetic vitamins with all the different chemical names and the millions of ingredients! So here's a short guide on some common synthetic vitamins to avoid:

## Why are natural vitamins better than synthetic?

### Bioavailability

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But synthetic vitamins can actually be TOO easy to absorb – which can also have negative health effects. (More on that later!)

### 1. Vitamin A

Synthetic: Retinyl palmitate  
Natural:  $\beta$ -Carotene or 'provitamin A'  
You can get vitamin A in two forms:

- Provitamin A' carotenoids such as  $\beta$ -carotene – found in plant foods
- Preformed vitamin A' – found in many supplements, animal foods and fortified foods



**There are 3 reasons to avoid preformed vitamin A:**

- High intake of total vitamin A or retinol can increase hip fracture risk (while high intake of some carotenoids can reduce hip fracture risk).<sup>4</sup>
- It can be toxic in high doses, as it accumulates in the liver.<sup>5</sup>
- Synthetic vitamin A supplements can cause birth defects.

**2. Vitamin B12:  
Cyanocobalamin**

Synthetic: Cyanocobalamin  
Natural: Methylcobalamin, Hydroxocobalamin, or Adenosylcobalamin

**There are 4 forms of B12 you need to know about:**

1. Cyanocobalamin
2. Methylcobalamin
3. Hydroxocobalamin
4. Adenosylcobalamin

Cyanocobalamin is

- cheap,
- synthetic, and
- the most common form of B12 found in fortified foods and supplements.

And, yes, it does contain cyanide.

For most people, this probably isn't an issue. (That's what your detoxification system is for, after all.)

For other people, high-dose cyanocobalamin could result in toxicity if you can't excrete the cyanide – for example, in patients with renal failure.<sup>7</sup>



### **3. Folic acid: Pteroylglutamic acid**

Synthetic: Pteroylglutamic Acid

Natural: Methylfolate, Folinic acid

Folate is found naturally in dark leafy greens and pulses. It is usually in supplements and fortified foods as a synthetic form called 'folic acid'.

But there's a big problem with this...

A third of the population lack a genetic enzyme called MTHFR which converts folic acid to the form your body needs: L-methylfolate.

In other words, people with MTHFR can't use synthetic folic acid! They can absorb it, but their body can't make use of it.

To make matters worse, synthetic folic acid can even block your body from using the natural folate from your food.

On the other hand, everyone can utilise the natural form of folate: methylfolate.

### **4. Vitamin E**

Synthetic: dl-alpha tocopherol, dl-alpha tocopherol acetate or succinate

Natural: alpha-, beta-, gamma- and delta-tocopherols and alpha-, beta-, gamma- and delta-tocotrienols

Vitamin E is a bit of an anomaly in the vitamin world.

Natural vitamin E includes eight chemically distinct molecules! These are:

- Alpha-tocopherol
- Beta-tocopherol
- Gamma-tocopherol
- Delta-tocopherol
- Alpha-tocotrienol
- Beta-tocotrienol
- Gamma-tocotrienol
- Delta-tocotrienol

The synthetic dl-alpha tocopherol is created using refined oils, trimethylhydroquinone, and isophytol. It is not as easily absorbed, doesn't stay as long in tissues, and is quickly dispelled like a toxin or unknown chemical.

On the other hand, natural vitamin E has roughly twice the availability of synthetic vitamin E.

But even if we're talking about natural vitamin E, more than 95% of all studies on vitamin E are about just one of the eight natural forms: alpha-tocopherol!<sup>13</sup> This form could almost still be called 'synthetic' because it has been synthetically isolated from the other 7 forms.

This might explain why the evidence for supplementing vitamin E on health is so mixed, with some studies finding that higher dose vitamin E supplements may be harmful.<sup>13,14</sup> Actually, one study even found that a low dose (<400 IU/d) of vitamin E combined with other nutrients has a much greater positive impact on health.<sup>15</sup>

Basically it's best to consume vitamin E in its natural form!

### **5. Vitamin C**

Synthetic: Ascorbic acid

Natural: Ascorbic acid

Vitamin C is actually the same molecule, whether it's natural or synthetic. The difference is that synthetic vitamin C is an isolated vitamin.

Why does this matter??

We know isolated ascorbic acid has good antioxidant properties. But then consider an apple.

# THE NATURAL DIFFERENCE

## VITAMINS



### Vitamin A

In the form of Beta-carotene is found in **carrot roots** and fungi



### Vitamin B (Complex)

can be sourced from guava, spirulina, **sprouted mung beans**, chlorella and lemon peel



### Vitamin C

can be sourced from amla, acerola cherries, **kakadu plum**, carne carne, and rosehip



" A GREAT PLANT SOURCE OF VITAMIN D IS SHITAKE MUSHROOMS "



## Calcium

The flowering plant **Pala Indigo** (Wrightia Tinctoria) is a wonderful source of Calcium

" MAGNESIUM IS ABUNDANT IN LANTANA CAMARA WHICH IS FROM THE VERBENA FAMILY OF PLANTS "

## Iron

is plentiful in **curry leaves**

## Zinc

**guava leaves** are extremely high in Zinc



## MINERALS

Ca Mg Fe Zn

High levels of **Vitamin E** are found in the oils of **sunflower seeds**, soybeans and wheatgerm

# TYPICAL INGREDIENTS OF VITAMINS & MINERALS

## SYNTHETIC MINERALS

Calcium is commonly made by crushing **seashells and stones**

Iron typically contain fine **iron fragments** from mining by-products

Synthetic forms of Zinc are usually made from combining glycolic acid zinc sulfate and zinc acetate

Magnesium is a combination of **synthetic magnesium silicate** and mined magnesium

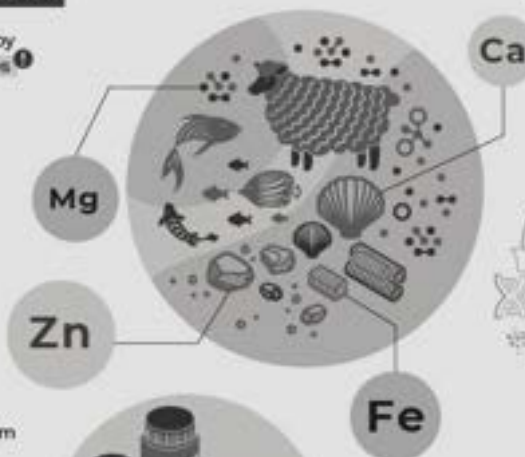
## ANIMAL COLLAGEN

SODIUM HYDROXIDE

BUTYL-ALCOHOL

PEROXIDES

Commonly used in the **extraction** of collagen from animals and fish by products



Mg

Zn

Fe

Ca

## CAPSULES

Capsules made from animal of cellulose gelatin

## PACKAGING

Non-recyclable plastic packaging

## VITAMIN

# A

Synthetic Vitamin A is usually made through a chemical process that combines fish waste and palm oil

## VITAMIN

Synthetic Vitamin B (complex) use in their production, retinyl palmitate, coal tar, ammonia, hydrologic acid, formaldehyde, petroleum esters, and genetically modified bacteria

## VITAMIN

# B

## VITAMIN

Synthetic Vitamin C is made from ascorbic acid that is isolated from genetically modified corn sugar or wheat and processed with chemicals such as acetone

# C

Synthetic Vitamin D is usually made from the lanolin obtained from animal skin that is irradiated

## VITAMIN

# D

## VITAMIN

# E

Synthetic Vitamin E is usually made by combining oils with isophytol and trimethylhydroquinone (made from 1,4-Benzenediol,2,3,5-trimethyl)

**SYNTHETIC**  
CHEMICAL VITAMINS



The vitamin C in an apple accounts for only 0.4% of its total antioxidant activity if we just look at the vitamin C alone.

It turns out there's a synergistic effect of the vitamins and phytochemicals in whole foods, which is responsible for their potent antioxidant and anticancer activities.

Synthetic vitamin C does not include the flavonoids and phytonutrients that help it work.

- Some other synthetic vitamins to avoid are:
- Choline: Choline chloride, choline bitartrate
- Vitamin D: Irradiated ergosterol, calciferol
- Vitamin B1 (Thiamine): Thiamine mononitrate, thiamine hydrochloride
- Vitamin B2 (Riboflavin): Riboflavin
- Pantothenic acid: Calcium D-pantothenate
- Vitamin B6 (Pyridoxine): Pyridoxine hydrochloride
- PABA (para-aminobenzoic acid): Aminobenzoic acid

### **5 Harmful ingredients contained in synthetic supplements**

It's not only the FORMS of vitamins you should be wary of when considering whether to buy natural vs synthetic vitamins.

Synthetic supplements also tend to contain other harmful ingredients to be aware of. These are additives or preservatives which give the supplements a long shelf life or make them easier to produce.

Let's go through some of the most important.

#### **1. Titanium dioxide (E 171)**

Titanium dioxide can increase oxidative stress and inflammation and might be related to carcinogenesis.

It can accumulate in some internal organs, like the spleen, liver, and kidneys.

However, as most studies have been carried out using animal models, more evidence of its effects on humans is needed before it can be deemed safe for consumption.

#### **2. Aluminium (E 173)**

Aluminium is a neurotoxic substance that has been found in high levels in the brain tissues of Alzheimer's, epilepsy and autism patients.<sup>19,20</sup>

It's important to note that aluminium is present in lots of different foods and pharmaceuticals you might consume – not just in supplements. There can even be high levels in your drinking water.

If your levels of aluminium intake are 'normal', your body can get rid of it. But if you consume too much, it can accumulate.

#### **3. Magnesium stearate (E 572)**

Magnesium stearate is used to delay breakdown and absorption of supplements so they're absorbed in the correct area of the bowel. It's authorised as a food additive with no safety concerns.



#### **4. Sodium benzoate (E 211)**

Sodium benzoate could be involved in contact allergic reactions, especially skin reactions such as dermatitis.

Cell-based studies also suggest that sodium benzoate can trigger DNA damage.

Studies in mice suggest that it may be harmful if regulations regarding safe consumption limits are mistakenly or deliberately ignored (which can easily happen with supplement manufacturers).<sup>27</sup> We need more evidence of the effects of sodium benzoate in humans – but the evidence we do have isn't a good start.

#### **5. Carrageenan (E 407)**

As of 2018, carrageenan was deemed non-toxic under certain consumption levels (75 mg/kg of body weight per day), although further research was recommended.

However, it's since been found that carrageenan may play a role in inflammatory bowel diseases (IBD).

Although evidence is still limited, a diet low in carrageenan might help prevent relapse of IBDs such as Crohn's disease or colitis.

Another additive, carboxymethylcellulose (E 466), has similarly been related to intestinal inflammation.

To sum it up...





**SAVE  
20%**

**SCAN TO SHOP**



Fyto Immune + is made from 100% superfood plant extracts that provide Vitamins C, D, and Zinc combined with the plant source of Vitamin K2..

**REMEMBER** To strengthen your immune system it is very important to have a diet high in plant foods and limit sugar intake, get enough sleep and minimise stress..



# THE MEDITATIVE POWER OF NATURE

## How to Improve Your Mental Health

**Trees! OMG – could you even begin to imagine a world without trees!?!**

Well, for one (quite big!) thing, they help us survive – trees are essential for life on earth to thrive.

Studies show that we can receive positive effects from nature, and conditions such as depression, anxiety and mood disorder can be eased considerably. [JB1] Access to nature has also been found to improve sleep and reduce stress, increase feelings of happiness, reduce negative emotions, and even help generate a sense of meaning for life itself.

Being in green environments boosts various aspects of thinking in people with and without depression, including attention, memory and creativity. 'The evidence is very solid,' says psychologist Marc Berman at the University of Chicago.[JB2]

Being outdoors in sunlight is said to energise T-cells in your immune system that help fight infection. Many trees and plants make phytoncides you breathe in that are known to bolster your immune function.

[JB1]I'd recommend splitting this into two sentences, since the first part is the topic of the paragraph (benefits of nature), while the second part explains one of those benefits. Here's one option:

"Studies show that we can receive several positive benefits from nature. It can considerably ease conditions such as depression, anxiety, and mood disorder."

[JB2]Would you like to link to the source of this statement? External links can have an impact on SEO.

But apart from all the awesome life-giving, health-supporting benefits trees provide, have you noticed the deeply peaceful energy trees give off?

**How to meditate in nature**[JB1]

There are multitudes of articles and studies on the benefits of meditation, but over my 30+ years of teaching Mindfulness Meditation, I've noticed many [JB1]I've added a heading here with possible keywords to improve SEO.

people overcomplicate meditation practices and say, 'I can't do it – I can't calm my mind.' Meditation doesn't need to be performed sitting cross-legged in an ashram and there's no need for incense, candles or floaty relaxation music. These things can be helpful for relaxing and calming the body (if you enjoy them), but they are not necessary to calm your mind.

Here are a few simple things you can do regularly to benefit from spending quiet, meditative time in nature.

### **Meditation under a tree**<sup>[JB1]</sup>

Turn off your phone and go sit under a tree if it's comfortable (and there are no little biting creatures present). Lean up against its trunk, uncross your hands, feet and legs, close your eyes (or leave them open if you're in a public place), slow your breathing, and bring your mind to this moment. You'll actually feel the calm energy coming from the tree. Even trees in the middle of busy cities or on traffic-laden roads have the same energy.

<sup>[JB1]</sup>I also added headings here and for each of the other meditation suggestions to improve SEO.

Notice how the tree trunk feels, listen to the birds, and fully engage your senses of hearing, touch, sight and smell – any or all of them. Gaze up into the leaves and let your eyes rest in the abundant foliage. Even doing these things for 5-15 minutes will bring peace and calm to your body and mind.

### **A meditative walk in nature**

Go for a walk amongst the trees. It's obviously great if you can get out into the quietness of the countryside or into a forest with big tall trees, but in most countries and cities around the world, you'll find

local parks, lakes, waterways and beaches that you can walk through without going too far from home. Many people have leafy green gardens in their homes but forget to just sit quietly and breathe, under or near a tree.

### **'Forest bathing' for meditation**

The practice of 'shinrin-yoku', which means 'forest bathing', encourages people to simply spend time in nature absorbing the atmosphere, while immersing the senses in the sounds, sights and feel of a natural and peaceful setting. Originating in Japan, forest bathing is an accepted part of Japanese preventative healthcare because of the mental, physical and spiritual health benefits it delivers. It is proven to lower a person's heart rate and blood pressure, reduce stress, improve feelings of happiness, boost the immune system, and accelerate recovery from illness. What a beautiful, peaceful and enjoyable way to spend a few hours!

So make it a project (great to do with your kids) and a vital part of your healthcare regimen to find some local areas with trees and walk, play or sit there several times a week, and add weekday or weekend trips to the countryside as regularly as possible.

You'll feel calmer and more at peace, your thinking will become clearer, and decision-making will be easier. Sitting quietly in nature, amongst trees, is an incredibly effective meditation practice and costs nothing.

**May you find peace in the greenery and live with ease.**

**Wendy Bryan**



A Ladybug wears no disguises.  
She is just what she advertises.  
A speckled spectacle of spring,  
A fashion statement on the wing,  
A miniture orange kite.  
A tiny dot-to-dot delight

J Patrick Lewis

# ELIMINATE CHEMICAL CALORIES

SYNTHETIC CHEMICALS MAKE YOU FAT.





### ***What Experts Say About Obesity and Diet***

Current estimates suggest that women are gaining weight at the rate of 450 g and men at 225 g each year despite the many dieting products they take. Could it be true that chemicals such as those we find in our food, skin care, and detergents make us fat?

In her groundbreaking book, *The Detox Diet, Eliminate Chemical Calories and Enhance Your Natural Slimming System*, Dr. Paula Baillie-Hamilton asserts that dieting should always go hand in hand with detoxification

and a plan to avoid the biggest offenders, synthetic chemicals.

The premise for most diets today is based on the work of Dr. Johnston and Dr. Newsborough of Michigan University in 1930. They developed the theory stating that if a person consumes fewer calories than the body burns, the body will burn up its fat stores. Whereas conventional calories are units of energy, Dr. Baillie-Hamilton coined the term “chemical calories,” which provides a revolutionary new unit for measuring the fattening ability of chemicals.



## ***Chemicals that Make You Fat: Weight Gain Explained***



dr paula baillie hamilton

The insecticides and herbicides known as carbamates used to grow plants for food, cosmetics, and medicinal purposes are also used as growth promoters in battery farms due to their ability to slow down the metabolic rate. They are also used in medicine to promote weight gain in humans. Toxic chemicals make us fatter, as pesticides have the ability to alter hormones, and a change in sex hormones can indeed cause weight gain.

Furthermore, raw ingredients of synthetic chemicals (oil and coal) are the products of fossilised plants and animals and are therefore made up of the same molecules that were once found in living creatures, which in turn makes them similar enough to natural materials for our bodies to recognise. However, their new properties (increased persistence, different structure, and so on) make them act in a completely unnatural way.

Synthetic chemicals mimic natural substances in the body when carrying out particular functions. Unfortunately, many of these substances do not break down or get “switched off” after performing their functions. Instead, they keep falsely stimulating or disrupting our bodies 24 hours a day, 7 days a week.

Although these chemicals are present in very small amounts, they damage our hormones. Out of all the hormones affected by chemicals, those that seemed most frequently under attack were our most valuable group of slimming hormones, the catecholamines. Once absorbed into our body, it does not matter if a fattening chemical is from food or cosmetics. On the other hand, the highest levels of slimming nutrients appear to be found in organic produce.

The chemicals we cannot eliminate end up being stored in our adipose tissue (body fat) due to their high fat solubility. Many chemicals in plastic are highly fat-soluble and rapidly leak into fatty foods (particularly dairy products and fatty meats). By the time a product gets to you, it does not only contain what are on the label but also a lot of components that are awful. Hence, we have to be more cautious of the products we consume, especially those that we intend to use consistently for a long time.



**HOW TO SOLVE THE WORLD'S  
MOST WICKED PROBLEMS:  
CONSIDER THEM SOLVED!**



The above words may seem like they were expressed by a young social-environmental enthusiast, but in fact were written in a report carried out over a two-year period between 2008 and 2010, which make up Finland's national strategy: Mission Finland.

Consider re-writing as: The above words may seem like a young social-environmental enthusiast expressed them, but in fact, they were written in a report carried out over a two-year period between 2008 and 2010, which make up Finland's national strategy: Mission Finland.

The report highlighted that the value of industrial products is decreasing in the global market. However, what is in short supply are solutions to environmental and social problems.

With a delegation headed by Jorma Ollila, Chairman of Nokia, several workshops were held around the country. The subjects included Finland's role in solving global environmental, social, educational and political problems, which resulted in creative ideas like wiki-democracy and a goal to become a "silicon valley of social innovation".

The Finns went as far as broadcasting a national live TV show entitled "Task for Finland", where the Finnish public sent ideas

for action to the Task for Finland website. The winner was a proposal for making Finland's expertise in water purification (1) a world-leading project. The runner-up was a proposal entitled "Let's make Finland the country of organic produce".

After this feedback from the Finnish public, the delegation concluded that Finland should take action immediately to ensure, amongst other important matters, that Finnish agriculture should increasingly be shifted to organic production with a goal that organic production should account for at least 50 per cent by 2030.

For any government to look at shaping its nation's future through the values and strengths of its people is inspirational, so much so that whilst reading the report, for a moment, I wanted to become a Finn!

Undoubtedly, many questions will arise from others wondering if these initiatives will bring prosperity (jobs), health and other social-environmental benefits to a nation.

Using organic agriculture as one example, let's see what the possibilities are for each of these areas.





## Prosperity and jobs

The notion of “green jobs” has become something of a symbol for a more sustainable economy and a society that aims to preserve the environment for both present and future generations.

With sales of organic produce reaching over \$100 billion worldwide in the past year, organic farming is beginning to have an economic impact.

An increasing body of studies (2) shows that per-acre yields on organic systems can match or outperform that of conventional industrialised farms.

Additionally, a study (3) of 1,144 organic farms in the United Kingdom and Ireland

showed that they employed one-third more full-time equivalent workers per farm than conventional farms. Organic agricultural land amounts to 4.3 per cent and 1 per cent of the total farmed area in these two countries, respectively. If 20 per cent of farmland became organic in both these countries, it would create an additional 73,200 jobs in the United Kingdom and 9,200 in Ireland. Whilst the past has seen many people leaving farmland to work in cities, there is an emerging trend with an increasing number of young people beginning to seek working opportunities on the land as an alternative to cities. Therefore, organic farming presents an opportunity for many to do so.

## ***How Do Chemicals Damage Our Health?***

**Chemicals damage our health in two ways:**

- The first way is by poisoning us through exposure to large amounts of chemicals that induce almost immediate and often violent symptoms and account for a staggering 220,000 worldwide fatalities every year. (Public Health Impact of Pesticides Used in Agriculture – WHO/UNEP, 1990)
- The second more subtle way is long-term exposure to much lower levels that usually goes unnoticed by the affected person who does not relate the health problem to toxic buildup. (The Chronic Effect of Pesticides – Beuman)

## ***How Do Synthetic Chemicals Affect Our Body?***

Many synthetic chemicals are extremely toxic, highly persistent, and long-lasting. When our bodies cannot break them down, process them, or excrete them, they become stored in our tissues. In other words, they are stored in our fat, liver, blood, and bones, continually building up over decades.

The most fattening chemicals are the persistent fat-soluble organochlorines stored in the body's fat. Every 2–3 weeks, the entire body fat stores are broken down, circulated in the bloodstream, and then recreated.

## ***What Are the Impacts of Toxic Chemicals on Human Brain and Physical Health?***

Toxic chemicals are extremely fat-soluble, and our brain has a high fat content. One feature of pesticides is their ability to act as nerve agents, paralysing the function of parts of the brain.

Furthermore, there is a myth that people are

overweight simply due to their own lack of effort, such as physical inactivity. The blame, however, must be pointed at toxic chemicals, which are the real culprits. Chemicals damage the nerves that control exercise (Poisoning due to Organophosphate – Toxicology & Applied Pharmacology – Namba, 1994). They directly injure and shrink muscle and damage the hormones that control muscle growth (Acute Effect of Some Chlorinated Compounds – Journal of Applied Toxicology, 1992). They reduce our ability to produce energy and even appear to reduce our drive to exercise!

## ***What Causes the Current Obesity Epidemic?***

The current obesity epidemic is caused mainly by the presence of toxic chemical pesticides. The chemicals used to kill a huge variety of life forms are also used in cosmetics and household products. The family of Organophosphate chemicals that are used on our fruits and vegetables is also used to fatten livestock.

The ultimate proof that these chemicals make us fat is that doctors use them in hospital conditions for that very purpose. Is it not obvious that if a drug (chemical) is used deliberately to cause weight gain under medical supervision, it will have the same effect if you are exposed to it from another source? The drug sulpiride is used for weight gain for anorexics. Pesticide residues and sulpiride have very similar effects.

Chemical calories have the ability to slow down and disrupt the efficiency of our natural “slimming system.”

Excess fats, rather than excess weight, are the real problem. Due to their high fat solubility, they tend to concentrate in fatty tissue.



## **Environmental Pollution**

Pollution takes many forms. The air we breathe, the water we drink and the soil where we grow our food.

Results of a study conducted by the Rodale Institute (4) showed that for every three acres of land that is organically farmed equates to taking one car off the road when comparing the capacity of an organic farm in removing carbon dioxide from the atmosphere to that of a conventional industrial farm.

Whilst the above numbers may seem small, consider the following: If only 40 per

cent of the farmland in the world, which currently occupies nearly 45 per cent of the earth's surface and equates to 12.35 billion acres, were converted to organic, that would be the same as taking more than 750 million (yes, million) cars off the road. Add the fact that there aren't even 750 million cars on the street in the entire world, and we can see the enormous benefit that would be affected if every nation moved towards organic agriculture. It's BIG in any language!

## Health

The artificial fertiliser, pesticide and agricultural chemical industries are growing at a rapid pace, whilst environmental, and health consequences grow in parallel. Many health professionals consider a large number of “foods” and “body care” products to be significant health risks. The use of synthetic pesticides alone shows that they are linked to a range of health disorders, including Parkinson’s Disease, obesity and decreasing male fertility, whilst also being ranked among the top three environmental cancer risks. (5) It has been calculated that 25 million people a year die from pesticide poisoning and that children in homes that use pesticides have seven times greater chance of contracting some form of leukemia.

Let’s look at this from another perspective by asking a question. How would you feel if one of the world leaders was to announce that its nation would, over the next 12 months, drop more than 70,000 atomic bombs on another country? Quite a scary consideration, isn’t it? Whatever your answer, please ponder the following:

In 1964 the world used 265 million kilograms (583 Million lbs) of pesticides in agriculture.

In 1974, Dr Americo Mosca, a famous chemistry prize winner of the Brussels World Fair, discovered that agricultural toxic generic chemicals are more dangerous than atomic fallout. He stated:

“I calculate that in the US, the yearly use of generic toxic chemicals (herbicides, insecticides, hormones, steroids...) causes damage equal to 450 H bombs” (for a clearer understanding, this equates to 72,500 atomic bombs of the Hiroshima type). “If the use of these generic toxic chemicals persists in agriculture and on food, this will cause destruction of the American people”.

The worldwide usage of pesticides increased to 500 million kg (1.1 Billion lbs) in 1991.

### So where are we today?

The current world usage of pesticides is 3.3 billion kg / 7.27 billion lbs) a year.

If you expose a human cell to high levels of radiation, it does one of two things: it mutates and becomes cancerous, or it dies. If you expose a human cell to pesticides, it does the same - mutates and becomes cancerous, or it dies. There is only one difference between the two exposures, and that is time. If a nuclear bomb were to be dropped on your city today, the devastation would be instantaneous. Pesticide poisoning, however, is much more insidious as it will take ten, 20, 30 or even 40 years, depending on your immune system and your capacity to metabolise and eliminate those pesticides that have stored in your fatty tissues.



# CAN WE AFFORD NOT TO GO ORGANIC?



Clearly, a worldwide conversion to organic has the potential to increase food production, reverse the degradation of our soils, atmosphere and waterways while conjunctly increasing the well-being of humanity in all aspects, from physical health, through to social and economic benefits.

Therefore, the question that begs to be asked is: can we afford not to go Organic?

*Alf Orpen*



## I AM OF MY MOTHER

I am the stillness, the breeze, the gale,  
I am the air that flows within and  
without of me.

I am the rain, the stream, the wave  
I am the water that flows within and  
without of me

I am the earth beneath my feet, for all  
the lives below and above it gives me life

I am the flight of a sparrow, the fin of a  
fish, the forest of trees.

I am Iroquois, I am Samurai, Warrior  
indeed, guardian of the way, protector of  
our Mother this earth

Threaten Her and you threaten me, and  
lightning you will see, thunder there  
shall be, no retreat from me.

Together respect Her and without  
doubt, peace for you and me shall be.

Alf Orpen



# DECODING TODAY'S SKIN CARE

## *Decoding Today's Skin Care*

### **Natural claims abound, but are they safe?**

As the number of informed people who are concerned about the chemicalisation of society grows, more cosmetics companies are seen to be jumping on the "natural" bandwagon. But what do "natural" and "organic" mean when you see them on a cosmetic package? How do we know what we are buying is really "natural"? What are the natural alternatives to chemicals? And is "natural" really better?

### **You are what you eat (and touch).**

Our skin, the largest eliminatory organ in the body and our first line of immunity, is permeable to all chemicals. Medical research shows that significant amounts of cosmetic ingredients, including carcinogenic substances, penetrate the skin and end up in the bloodstream. Many chemicals in cosmetics don't cause obvious signs of toxicity on the skin but slowly poison us through repeated use.

### ***Toxicity in Some Cosmetic Products***

In America, a 1993 survey found levels of the highly toxic 1,4-dioxane in 27 out of 30 children's shampoo and bubble bath products tested. Likewise, of 54 ethoxylated cosmetic raw materials tested, all contained 1,4-dioxane. One study, conducted by the University of California, revealed that more than 58,000 hairdressers, manicurists, and cosmetologists developed cancer at four times the rate of the general population.

Today, the administration of drugs and medicines is often through transdermal skin patches. This has been shown to be up to 95% more effective than oral medication. However, cosmetic manufacturers are not supposed to claim that the skin absorbs their products. If they did, the products would be labelled a drug and henceforth governed by much stricter regulations. This is both good and bad for us. Good because it means our skin can be fed, nourished, and treated from the outside with some wonderful substances. Bad because it means we can absorb commonly used cosmetic ingredients that would never be allowed to be taken orally as a food or drug, through our skin.

### ***What Do "Natural" and "Organic" Mean on Cosmetics Labels?***

Nowhere do the terms "natural" and "organic" take more of a beating than in the cosmetics industry!

You and I probably think of the term "organic" to mean grown and cultivated without the use of chemicals. That would be the conclusion most cosmetics companies would like us to make when we see the term on a cosmetics label.

Most cosmetics companies utilising the term "organic" on their label are using the chemistry definition of organic—a compound that contains carbon. Carbon is found in anything that has ever lived. So, by using the said definition, we could say that a toxic petrochemical preservative called methylparaben is "organic" because it was formed by leaves that rotted over thousands of years to become oil, which was used to make this chemical preservative.

Now, if we look at the term "natural," we probably define it as "existing in, or formed by nature; not artificial." However, the trend today is to see long lists of chemical names, followed by phrases such as "derived from coconut oil." This is misleading and wrong.

For example, Disodium Laureth Sulfosuccinate, which is said to be derived from coconuts, has been found to contain dangerous levels of ethylene oxide and dioxane. Ethylene oxide and dioxane are both potent toxins and known to cause cancer, created in the manufacturing process.

The source of the ingredient (which is usually anything but natural and pure) has nothing to do with what you end up with! To insinuate that a chemical substance is natural by adding the phrase "derived from coconut oil" is deceitful.

### ***How To Know What Is Truly "Natural" and Safe***

Most adverse reactions to cosmetics go unreported. The vast majority of people who react to cosmetics simply stop using the offending product without notifying the manufacturer. Many chemicals in cosmetics don't even cause signs of toxicity on the skin but still contain systemic toxins.

The cosmetic industry is self-regulated. Manufacturers are not obliged to tell us the dangers associated with the ingredients they use and are less than enthusiastic about conducting the necessary tests to determine the short and long-term effects of their products on consumers. And why would they? As long as we continue to buy products that contain these harmful chemicals, they'll keep making them and make billions of dollars in the process!





Have you ever bought a cosmetic that you were assured was natural, only to get it home, read the label, and wonder what on earth those long names are? The author believes it is high time consumers were given the tools to be able to differentiate the deceivers from the truth tellers in the cosmetic industry! Fortunately, there is one very simple way to differentiate between hype and truth in cosmetics—and that is to read the ingredient list.

## List of Toxic Ingredients

Go to your bathroom now, and check your labels for these toxic ingredients:

### **Amine Compounds**

These chemicals combine with nitrosating agents to form cancer-causing nitrosamines in cosmetic products. One study found that over 40% of cosmetics containing Triethanolamine (TEA) have been found to be contaminated with nitrosamines. Furthermore, Dr. Samuel Epstein (Professor of Environmental Health at the University of Illinois) says that repeated skin applications . . . of DEA-based detergents resulted in a major increase in the incidence of liver and kidney cancer.

- MEA (Monoethanolamine)
- DEA (Diethanolamine)
- TEA (Triethanolamine)
- MIPA (Monoisopropanolamine)

### **Ethoxylated Surfactants**

Ethoxylated surfactants are widely used in cosmetics as foaming agents, emulsifiers, and humectants. As part of the manufacturing process, the toxic chemical 1,4-dioxane, a potent carcinogen, is generated. [1] On the label, they are listed as ingredients ending with -eth, like laureth, containing the syllable -oxynol-, PEG (Polyethylene Glycol), Polyethylene, and PPG (Polypropylene Glycol). These chemicals may actually increase the rate of aging of the skin and leave you more vulnerable to bacteria.

### **Nitrosating Agents**

The following chemicals can cause nitrosamine contamination, which has been determined to form cancer in laboratory animals. There are wide and repeated concerns in the USA and Europe about the contamination of cosmetics products with nitrosamines.

- 2-bromo-2-nitropropane-1,3-diol
- Cocoyl Sarcosine
- DEA compounds
- Imidazolidinyl Urea
- Formaldehyde
- Hydrolysed Animal Protein
- Lauryl Sarcosine
- MEA compounds
- Quaternium-7, 15, 31, 60, etc
- Sodium Lauryl Sulfate
- Sodium Laureth Sulfate
- Sodium Methyl Cocoyl Taurate
- TEA compounds

## **Anionic Surfactants**

One particularly nasty anionic surfactant is Sodium Lauryl Sulfate (SLS). Animals exposed to SLS experience eye damage, Central Nervous System (CNS) depression, laboured breathing, diarrhoea, severe skin irritation, and even death. Young eyes may not develop properly if exposed to SLS because proteins are dissolved. SLS may also damage the skin's immune system by causing layers to separate and inflame.

Anionic refers to the negative charge these surfactants have. They may be contaminated with nitrosamines, which are carcinogenic. Surfactants can pose serious health threats. They are used in car washes, as garage floor cleaners and engine degreasers, and in 90% of personal-care products that foam.

- Sodium Lauryl Sulfate (SLS)
- Sodium Laureth Sulfate
- Ammonium Lauryl Sulfate
- Ammonium Laureth Sulfate
- Sodium Methyl Cocoyl Taurate
- Sodium Lauroyl Sarcosinate
- Sodium Cocoyl Sarcosinate
- Potassium Coco Hydrolysed Collagen
- TEA (Triethanolamine) Lauryl Sulfate
- TEA (Triethanolamine) Laureth Sulfate
- Lauryl or Cocoyl Sarcosine
- Disodium Oleamide Sulfosuccinate
- Disodium Dioctyl Sulfosuccinate

## **Cationic Surfactants**

These chemicals have a positive electrical charge. They contain a quaternary ammonium group and are often called "quats." These are used in hair conditioners but originated from the paper and fabric industries as softeners and anti-static agents. In the long run, they cause the hair to become dry and brittle. They are synthetic, irritating, allergenic, and toxic. Oral intake of them can be lethal.

- Stearalkonium chloride
- Benzalkonium chloride
- Ctrimonium chloride
- Cetalkonium chloride
- Lauryl dimonium hydrolysed collagen

## **Lanolin**

Any chemicals used on sheep will contaminate the lanolin obtained from the wool. The majority of lanolin used in cosmetics is highly contaminated with chlorinated organo pesticides like DDT.

## **Talc**

Scientific studies have shown that routine application of talcum powder in the genital area is associated with a three-to-fourfold increase in the development of ovarian cancer.

## **Synthetic Preservatives**

The decaying process is natural and goes on with or without preservatives. Cosmetics do not (and should not) last forever. Just like food, all cosmetics containing natural substances will eventually grow microorganisms and go rancid. The chemical preservatives, colours, and fragrances in cosmetics hide the obvious signs of putrefaction. Chemicals used to preserve cosmetics are far more toxic, and cause many more reactions, than the bacteria they are supposed to protect us from. Their effectiveness (not safety) has only been "proven" by torturing and killing animals (otherwise known as animal testing). Chemical preservatives are not used to protect the consumer; they are used to protect the manufacturer from economic loss. It is far cheaper to produce vast amounts of product and warehouse it than to create small batches that ensure product freshness. Avoid these toxic chemical preservatives:

- DMDM Hydantoin (contains formaldehyde)
- Germall 115 (Imidazolidinyl urea) (releases formaldehyde over 10°C)
- Germall II (Diazolidinyl urea)
- Methyl, Propyl, Butyl, and Ethyl Paraben
- Sodium Sulfosuccinate
- Thiomersal (contains mercury)
- Sodium Hydroxymethylglycinate
- Isothiazolinone
- Chloromethylisothiazolinone
- Methylisothiazolinone
- Methylchloroisothiazolinone
- Bronopol
- Butylated Hydroxytoluene (BHT)
- Butylated hydroxyanisole (BHA)

## **FD&C Colour Pigments**

Synthetic colours made from coal tar contain heavy metal salts that deposit toxins onto the skin, causing skin sensitivity and irritation. Absorption of certain colours can cause depletion of oxygen in the body and death. Animal studies have shown almost all of them to be carcinogenic.

## ***Fragrances***

Fragrance on a label can indicate the presence of up to 4,000 separate ingredients—many are toxic or carcinogenic. Symptoms reported to the FDA in the USA include headaches, dizziness, allergic rashes, skin discoloration, violent coughing and vomiting, and skin irritation. Clinical observation proves fragrances can affect the central nervous system, causing depression, hyperactivity, irritability, and other behavioural changes.

## ***Mineral Oil***

This petroleum by-product that coats the skin like plastic and clogs the pores. It interferes with the skin's ability to eliminate toxins, promoting acne and other disorders. Mineral oil slows down skin function and cell development, resulting in premature aging. It is very widely used and promoted as being safe and beneficial for the skin (baby oil is 100% mineral oil!) Mineral oil derivatives contain carcinogenic and mutagenic Polycyclic Aromatic Hydrocarbons (PAH) and the carcinogen Anthanthrene. Mineral oils are the major constituents of Sorbolene Cream and standard pharmaceutical aqueous cosmetic bases.

- Mineral oil
- Liquidum paraffinum (also known as posh mineral oil)
- Paraffin oil
- Paraffin wax
- Petrolatum



## **Silicone Derived Emollients**

Silicone emollients are occlusive—they coat the skin, trapping anything beneath it, and do not allow the skin to breathe (much like plastic wrap would do). Recent studies have indicated that prolonged exposure of the skin to sweat, by occlusion, causes skin irritation. Some synthetic emollients are known tumour promoters and accumulate in the liver and lymph nodes. They are also non-biodegradable, causing negative environmental impacts.

- Dimethicone
- Dimethicone Copolyol
- Cyclomethicone

## **Rancid Natural Emollients**

Natural oils used in cosmetics should be cold-pressed. The refined vegetable oils found on supermarket shelves and many health food stores that lack colour, odour, and taste are devoid of nutrients, essential fatty acids, vitamins, and unsaponifiables—all valuable skin conditioning agents! They also contain poisonous "trans" fatty acids as a result of the refining process.

Another important factor to consider with creams made from plant oil is the use-by date. The most beneficial plant oils (like rosehip, borage, and evening primrose oils) are polyunsaturated, which means they oxidise and go rancid fairly quickly (about 6 months). Most off-the-shelf cosmetics have a shelf life of three years. Rancid oils are harmful since they form free radicals, which damage and age your skin.

## **Propylene Glycol (PG) and Butylene Glycol**

They easily penetrate the skin and can weaken protein and cellular structure. They are commonly used to make extracts from herbs. PG is strong enough to remove



barnacles from boats! The EPA considers PG so toxic that it requires workers to wear protective gloves, clothing, and goggles and to dispose of any PG solutions by burying them in the ground. Because PG penetrates the skin so quickly, the EPA warns against skin contact to prevent consequences such as brain, liver, and kidney abnormalities. But there isn't even a warning label on products such as stick deodorants, where the concentration is greater than in most industrial applications.

*An Excerpt from the Material Safety Data Sheet (MSDS) for Propylene Glycol*

*Health Hazard: Acute and chronic*

*Inhalation: May cause respiratory and throat irritation, CNS depression, blood and kidney disorders, nystagmus, and lymphocytosis*

*Skin: Irritation and dermatitis, absorption*

*Eyes: Irritation and conjunctivitis*

*Ingestion: Pulmonary oedema, brain damage, hypoglycaemia, intravascular hemolysis/death may occur*



Jojoba Fruit

## What Are the Natural Alternatives to Chemicals?

### ***Emollients***

Emollients serve two functions: (1) prevent dryness and protect the skin, acting as a barrier and healing agent and (2) lubricate and soften the skin. They reduce roughness, cracking, and irritation, and may help retard fine wrinkles. Water is the best emollient, but because it evaporates too quickly, it is ineffective. It needs to be held onto the skin by emollient oils in an emulsion. Natural emollients actually nourish the skin. They are metabolised by the skin's own enzymes and absorbed into it. They are readily biodegradable and are of edible quality.

### ***Excellent Natural Emollients***

#### **1. Jojoba Oil**

Jojoba oil is a yellow liquid wax pressed from the bean of the desert jojoba plant. It contains a waxy substance, similar to skin sebum, which gives a silky smooth feel. Jojoba has excellent moisturising and protective effects; it penetrates deeply. It is useful for acne, eczema, inflamed skin and psoriasis, and seems to have some possible benefits in preventing hair loss.

#### **2. Avocado Oil**

Unrefined avocado oil, which is dark green in colour, contains vitamins A, B1, B2, D, pantothenic acid, and vitamin E, as well as lecithin. It is excellent for dry and wrinkled skin.

#### **3. Hazelnut Oil**

Expressed from the kernel of the hazelnut, this oil contains vitamins, minerals, and protein. It is said to be beneficial for oily or combination skins and useful with acne.

#### **4. Evening Primrose Oil**

Expressed from the seeds of the evening primrose flower, it is extremely high in essential fatty acids (linoleic, linolenic, and arachidonic). It also contains gamma-linolenic acid (GLA).

#### **5. Rosehip Seed Oil**

The bright orange, unrefined rosehip seed oil is used to reduce scarring and facial lines, soften scars, and retard premature aging. It is high in vitamin F (essential fatty acids).

#### **6. Shea Butter**

This plant butter is produced from the nuts of the large karite tree in West Africa. Some clinical observations suggest that shea butter increases local blood circulation in the skin, improving the elimination of waste products. Other studies suggest that shea butter helps to improve the elasticity of the skin, making it a valuable addition to products for all skin types. The unsaponifiables and cinnamic esters in shea butter give it antimicrobial and moisturising properties and provide light protection against UV rays of the sun.

## **Surfactants**

Surface-active agents are substances capable of emulsifying oils and holding dirt in a suspension so that it can be rinsed away with water. They are used in skin cleansers and shampoos. Natural saponins (foaming agents) are a much better choice for shampoos. They gently cleanse the hair and scalp without stripping the natural oils.

## **Excellent Natural Surfactant**

### **Yucca Juice**

The Yucca Schidigera plant is native only to the southwestern deserts of North America. Traditionally, Native American Indians used it for washing, shampooing, and for a myriad of different medicinal applications.

The natural saponins in the juice are responsible for its superior surfactant quality and eliminate the need for chemical detergents. Biochemical research has shown that natural saponins, like those found in Yucca,

repair the damage to cell membranes of the skin and scalp that result in a loss of nutrients. Aside from repairing the damage done by day-to-day treatment of our skin and hair, Yucca is a potent antioxidant, anti-inflammatory, anti-irritant, antibacterial, and antifungal.

## **Natural Preservatives**

Some Excellent Natural Preservatives

### **Grapefruit Seed Extract**

The grapefruit seed extract is a potent antibacterial and antifungal agent. It can also be used as an internal medication to relieve candida infections.

### **Olive Extract**

Olive extract is a unique antioxidant from the olive leaf. It protects both your skin and the polyunsaturated oils in our products from free radical damage. It reduces skin damage caused by pollution and UV radiation, therefore protecting the skin from photoaging. It also improves skin hydration and elasticity.

## **Active Botanical Substances**

Many cosmetic companies are including herbal extracts in their products these days. Unfortunately, most herbal extracts sold as raw material use propylene glycol as a solvent, a substance that should be avoided. Another concern is the concentration of herbs; herbal extracts require a dosage over a certain level to have a beneficial effect on the skin. Judging by the lack of colour in most preparations, the concentrations are too low to have any effect.

The application of appropriate levels of active herbal ingredients provides the opportunity to tend to your skin's unique needs. Ideally, these should be applied after cleansing, when the skin is in a better condition to absorb treatment by the active ingredients found in herbals.



Yucca



## **Some Excellent Skin Care Herbs to Look for**

### **Burdock Extract**

Burdock root has been used as a remedy against skin cancer in Chile, China, India, Canada, and Russia. Herbalists praise it as an excellent remedy for acne and eczema. Burdock is said to restore the smoothness of the skin and promote hair growth.

### **Carrot Seed Extract**

Carrot seed has regenerating and toning effects, which is excellent for mature and congested skin, couperose skin, and eczema.

### **Chamomile Extract**

Chamomile extract has counter-irritant, anti-inflammatory, and antiseptic properties. It is excellent for sensitive and allergy-prone skin.

### **Echinacea Extract**

Echinacea herb is used internally as a blood purifier. Externally, it helps speed the healing of skin conditions such as acne, eczema, and other problems. It also firms and tones the skin.

### **Gotu Kola Extract**

Gotu kola herb is one of the reported "elixirs of life," just like ginseng. Gotu kola is useful for stressed skin, heals wounds, dermatitis, and inflammations, and is a valued skin tonic.

### **Horse chestnut Extract**

Horse chestnut seed is an excellent treatment for blotchy, sensitive skin. It helps to strengthen capillaries and is anti-inflammatory.

### **Horsetail Extract**

Horsetail herb is recommended by the herbalist Kneipp to heal tumours and cancer. It is an effective remedy for psoriasis, dandruff, eczema, and similar skin conditions. It has also been praised for its ability to reduce swelling of the eyelids and heal wounds.

### **Korean Ginseng Extract**

The extremely rare and expensive Korean ginseng root acts as a potent skin reactivator and rejuvenator. Ginseng activates cell metabolism and prolongs the life span of human cells. It is used as an anti-wrinkle and anti-aging ingredient and is excellent for revitalising

stressed skin. The polysaccharides in Korean ginseng have anti-inflammatory properties.

### **Marshmallow Extract**

Marshmallow leaf (or Althea) has been used since ancient times as an anti-inflammatory and to soothe and heal the skin. Its name is derived from the Greek word meaning healing. It is said to control oily skin and soothe allergic skin reactions.

### **Plantain Extract**

Plantain leaf soothes and heals many skin conditions. It is toning and astringent (contracts skin tissues) and reduces oil secretions of the skin.

### **St. John's Wort Extract**

St. John's wort flowering herb is soothing and anti-inflammatory and is used for sensitive skin. It is also used as a skin tightener.

### **Witch Hazel Extract**

Witch Hazel leaf extract soothes inflamed skin. It is astringent and anti-inflammatory.



## ***The Benefits of Pure Essential Oils***

The following are descriptions of a few essential oils and their beneficial properties for the skin:

### **German Chamomile**

German chamomile has antibacterial and fungicidal properties. It has excellent wound-healing and pain-relieving properties.

### **Roman Chamomile**

The pure essential oil from Roman chamomile flowers is antiseptic and astringent and has healing properties for dermatitis, eczema, acne, and rashes. It is especially effective in treating sensitive, dry, and inflamed skin.

### **Frankincense**

The pure essential oil obtained from the resin of frankincense bark is regenerative and astringent. It is excellent for aging skin and the treatment of wrinkles. It tones the skin and promotes new cell generation.

### **Geranium Bourbon**

The pure essential oil obtained from the geranium leaf and stem is antiseptic, astringent, and toning. It normalises sebum production and stimulates the lymphatic system, making it excellent for seborrhoea, rosacea, and inflamed conditions.

### **Lavender French**

The pure essential oil from the freshly cut tops of lavender flowers is useful for all skin types since it regulates sebum production. It fosters the regeneration of new skin cells and soothes inflamed skin.

### **Lemon Myrtle**

The pure essential oil of lemon myrtle leaves and twigs is a potent antibacterial and antiseptic agent. It is excellent for acne conditions and oily skin.



## **Lemon**

The pure essential oil expressed from the peel of ripe lemons is astringent, antibacterial, antiseptic, and has cleansing properties. When applied to oily skin it can help reduce sebum production. Lemon oil can cause increased skin sensitivity to ultraviolet light if left on the skin.

## **Lime**

The pure essential oil expressed from the peel of ripe limes has cleansing and antiseptic properties. Lime oil can cause increased skin sensitivity to ultraviolet light if left on the skin. We only use citrus oils in our Miessence cleansers because they are washed off the skin.

## **Myrrh**

The pure essential oil obtained from the resin from the Myrrh tree has excellent anti-aging and anti-wrinkle properties. It is astringent (tones the skin) and promotes new cell generation.

## **Orange Sweet**

The pure essential oil expressed from the peel of ripe oranges is astringent, antibacterial, antiseptic, toning, and cleansing. Orange oil can cause increased skin sensitivity to ultraviolet light if left on the skin.

## **Patchouli**

The pure essential oil of patchouli leaves is used to treat dry, mature, or wrinkled skin, to rejuvenate, invigorate and restore.

## **Rose Moroccan**

Over one million blooms are used to make one kilo of the highly-prized oil of the Moroccan rose. It is excellent for dry, mature, and sensitive skin. It is astringent, toning, and regenerative.



## **Sandalwood**

The pure essential oil from sandalwood strengthens the connective tissue and dermis and helps water retention in the skin. It is an excellent hydrating oil for dry skin. It is healing and anti-bacterial, making it useful for acne and itching in general.

## **Tea Tree**

The pure essential oil from the leaves of the tea tree is a potent antiseptic and antibacterial and is excellent for the treatment of acne.

## **Ylang Ylang**

The pure essential oil from the exotic "flower of flowers" normalises sebum production and is useful for dry, oily, or combination skin.

## ***Is "Natural" Really Better?***

Every intelligent consumer will want to avoid synthetic chemicals in cosmetics. By recognising them and knowing some of the possible problems their presence in a product can cause and by knowing some natural alternatives and how they support and nurture our skin, we take the first step to a healthier, more harmonious, and more beautiful self. In every choice, we reinforce in ourselves either chaos or harmony. What do you choose?

Our bodies can tell the difference. The body responds to and resonates in harmony with things from nature. By using only 100% natural, edible ingredients in what we nourish our skin with, we honour our body's innate intelligence.



PURE

POTENT

& FRESH

**SAVE  
20%**



SCAN TO SHOP



FORMULATED WITH CERTIFIED ORGANIC HERBS, FRUIT, SEED OILS BUTTERS, AND FLOWER EXTRACTS TO NOURISH AND REVITALISE THE COMPLEXION.

# CLOTHING MATTERS

## Is your clothing harming you and others ?

Clothing is a basic necessity of life, but clothes can also make us feel good, comfortable, pretty – all of it. Many people also love fashion for its creativity and inspiration.

For most workers in the textiles industry however, conditions are anything but inspiring. Globally, there are more than 40 million people working in the clothing manufacturing sector, making 80 billion pieces of new clothing each year, with the majority of these products being manufactured in China and Bangladesh.

When we shop for clothing, we rarely consider the harmful effects on our health and the environment. We simply buy and wear it without the slightest knowledge of where it comes from, how it's made, or the materials it's made from. The health and environmental impacts of the clothing industry are relatively unknown.



In what is described today as 'fast fashion', the major concern for big name fashion brands is how quickly and inexpensively they can move designs from the catwalk to stores. Despite name brand products being popular for their style, affordability and durability, the use and disposal of the majority of fast fashion synthetic fibres is harmful to both ecosystems and individuals.

Most clothing on the planet is made from plastic-based materials like polyester, rayon, nylon and acrylic fibres that have been linked to various health problems such as skin irritation, respiratory issues and even cancer.

Factory workers involved in the process of changing petroleum into polyester, for instance, are at risk of hormonal disruption and even the formation of breast cancer cells.



Another example involves brominated flame retardants (BFRs), which are used in clothing to reduce flammability. Unfortunately, these chemicals have been linked to abnormal hormone function in the thyroid, which has a critical impact on foetal and childhood development. Adding to the risk of exposure, BFRs often migrate out of a product over time and may then contaminate household dust and food.<sup>1</sup>

Other chemicals used to produce synthetic fibres include phthalates, formaldehyde and heavy metals, which pollute the air, water and soil and lead to long-term environmental degradation. Additionally, wearing synthetic clothes can potentially be dangerous as the harmful chemicals present in the clothing can be absorbed through the skin.<sup>2</sup>

## Micro pollution

Of further concern are microfibres, the tiny thinner-than-human-hair pieces that make up synthetic fibres. When synthetic clothing is washed, it sheds microfibre fragments, which are the most prevalent type of microplastic in the environment.

In a Marine Pollution Bulletin report [JB1] it was calculated that around one million microfibre pieces, roughly the equivalent of the surface area of a pack of gum, are discharged into the environment every wash.<sup>3</sup>

When compared to synthetic textiles, natural fibres such as cotton, wool, bamboo and linen are not only biodegradable but also hypoallergenic, breathable and durable, and their longevity reduces the need for frequent replacements.

As natural fibres can be produced using sustainable farming practices, without the need for toxic chemicals, choosing natural fibres over synthetic alternatives can greatly reduce the amount of waste generated and minimize the negative impact on the environment.

[JB1]I changed the title of this publication to match the reference information given at the end of the article.





## Fairtrade fashion matters

'We were taught to serve, to be workers. Now with Fairtrade, we are entrepreneurs.'

—Martial Quintero, Cooperativa de Servicios Múltiples Bananera del Atlántico, Panama

As most people now know, the fashion industry is rife with exploitation, from sweatshops filled with garment makers working in deadly conditions to child cotton pickers – it's an industry that still lacks sufficient regulation.

That is why the Fairtrade certification movement is an exciting development for the fashion industry. It aims to produce apparel based on ethical trade practices that help ensure everyone in the supply chain is provided with fair prices and wages and safe working conditions, all of which are seen as prerequisites to improve the well-being of garment workers.

As Fairtrade clothing and organic fibres are related, another important principle of the Fairtrade global movement is to prioritize the sustainable use of resources in order to contribute to the wider goal of sustainable production practices.





Fairtrade is the most recognized and trusted sustainability label in the world, a global organization that is co-owned by more than 1.8 million farmers and workers who earn fairer prices, build stronger communities, and have more control over their futures. Collectively, these farmers and workers own 50% of the Fairtrade system, giving them an equal say in Fairtrade's decision-making.

Fairtrade clothing purchases are slowly becoming popular as people become more informed and make mindful decisions about their fashion purchases. When you buy Fairtrade clothing, you are not only buying clothes that are safe to wear, but you are also helping provide a better living to those who make the clothing.

**Your purchase decisions can change the lives of workers around the world. Every time you purchase Fairtrade clothing is like making a micro-investment in the fashion market that works for everyone and for our planet. Your purchase decisions really matter.**

# WEAR NO EVIL.



FAIRTRADE

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Business for good



**SAVE  
10%**

SCAN TO SHOP



**FAIRTRADE  
ORGANIC  
VEGAN  
CLOTHING &  
FOOTWEAR**

# happify

verb: To actively create conditions that contribute to the happiness of all people and the planet we inhabit.

