

## Top nutrition and exercise tips for staying in tip top shape over winter!

By Dr Kelly Dale

Many of us during winter want to spend the time eating warming, comfort food and staying close to the fire and television. However, this is not so good for our waistlines and our health in general! Here are some tips to help stay healthy, boost our immune system, keep active and avoid dreaded weight gain over winter.

- Boost your **immune system** during the cold and flu season by having lots of fruits and vegetables rich in Vitamin C. Having a high intake of Vitamin C can reduce the severity and duration of your cold! So pack an orange, kiwifruit or some pineapple in your lunchbox. In your stir-fry or soup have pumpkin, broccoli, spinach, tomatoes, peas, carrots, brussel sprouts or peppers. Or try a smoothie at breakfast with some frozen berries. Along with Vitamin C, to help fight off infections it is important to have enough of the mineral zinc (found in fish, seafood, beef, lamb, chicken, nuts, eggs, milk, and some cereals). There is nothing better in winter than cooking up a yummy roast beef or chicken with lots of roast vegetables.
- Winter is the perfect time to make **delicious healthy soups**. Pack your soups full of healthy vegetables, lentils and lean meats, try these flavours: minestrone; spicy carrot and pumpkin; chicken and sweetcorn; roasted vegetable; kumara and chickpea; mushroom; red lentil and carrot. Taking homemade soup for lunch is super easy, or is delicious in the crockpot waiting for you after a long cold day.
- **Overeating** tends to be more of a problem during the winter months. Watch your portion sizes as it can be easy and tempting to have seconds when you are indoors all evening. Try using a smaller plate, packing away leftovers straight away (into lunchboxes for the next day), and piling your plate up with colourful vegetables. Also avoid watching TV while you eat dinner - it is really easy to eat too much this way and then be left feeling unsatisfied, instead sit down at the table and eat dinner with your family. Skip the heavy winter pudding!
- Get out the **slow cooker!** Use cheaper cuts of meats (blade, chuck steak, shoulder chops) and make some delicious slow cooked casseroles packed with lots of vegetables, herbs and spices.
- **Experiment** with legumes. Add chickpeas to a pumpkin curry; add lentils to your Indian dishes; split peas to soups; kidney beans to a mince chili. These are filling, cheap, and nutritious!
- Try and spend some **time outdoors everyday** - go for a brisk walk during your lunch break. Catching a small amount of sun is important both for your Vitamin D levels and for those who suffer from seasonal affective disorder (SAD). Plus being physically active will boost your immune system and help combat depression.
- **Exercise indoors!** Make your own circuit class in the garage: put your bike on a wind trainer; add some free weights (could use canned food); a skipping rope; a swiss ball; do some push-ups and jumping jacks / burpees and blast your favourite music. Keep your pedometer on and try and reach your 10,000 steps, it all adds up so don't forget to take the stairs instead of the lift. Get the music going at home and have a dance with your kids! Or join an indoor sports team (cricket, netball, basketball) with friends/ family or workmates. See if you can join a gym over the winter or hire a cross-trainer or treadmill - just for a few months.
- **Brave the elements** to release some energy! How about joining a harriers walking or running club. Exercise is more fun when it is social! Go for a walk or jog during your lunch break, it is not as cold or dark then.

Cont.

### WELCOME TO OUR WINTER NEWLETTER



Dr Simon Ryder-Lewis

Welcome to our autumn newsletter! We always aim to keep you up to date with the latest developments in Occupational Health and Safety. If you have any questions about the articles here, or if we can help with any issues you have at work, please give us a call.

#### Our Services

Individual Work Site Assessment  
Walk through surveys  
Hazard identification and management  
Noise, lighting and air quality (dust) monitoring  
OOS hazard identification and management  
Health and Safety Compliance  
Pre-employment Medical exams  
UKOOA / OGUK exams  
Training for Staff and Management  
Use of personal protective equipment  
Stress and fatigue  
Understanding the HSE Act  
Influenza pandemic planning  
Manual handling  
Health Monitoring  
Work site clinics  
Absenteeism management  
Accident investigation  
Hearing and respiratory testing  
Injury management and rehabilitation  
Gradual return to work programmes  
Influenza vaccinations  
Drug and alcohol testing  
Occupational vaccinations  
Travel medicine

## Top nutrition ... (cont.)

Exercise is more fun when it is social! Go for a walk or jog during your lunch break, it is not as cold or dark then. Making a commitment will keep you on track, so join a sports team (hockey, rugby, soccer, netball), plus you get to spend time with friends while exercising!

- Don't forget to drink plenty of **water** - this is just as important in winter to help keep us hydrated. Sometimes we can confuse being thirsty and dehydrated as hunger- so always have a big glass of water before reaching for a snack.

Making healthy eating and exercise choices over the winter well help you maintain a healthy weight, keep your body working well

and help you feel better! Plus you will be feeling great by the time Spring and Summer comes around.

Dr. Kelly Dale, Nutritionist is available for consultation & seminars. Please contact us if you would like to speak with her.



### What are ENM's?

Engineered nano materials, sometimes called nano particles or

nanotechnology, are an enormous growth area in industry.

There are natural and engineered or man-made nano materials. Those with the most important risk to health are the engineered ones.

There are lots of definitions of what a nano material is but essentially they are very small groups of atoms. The human eye is only just able to see an object which is 100,000 nanometres (nm) across. A nano meter is a billionth of a metre. The maximum size of a nano material is 100 nm so it can be appreciated how small these objects are.

### How do ENM's get into the body and how do they affect health?

ENM's are easy to breathe in – they have an important characteristic in that they don't "clump" as the natural ones do. This means they tend to float around in the environment and can be a significant hazard, particularly if they are breathed in.

They are so small they can squeeze in between cells and have been known to penetrate through the nose when breathed in and straight into the brain. Nano materials are easily absorbed through the skin and their long-term health effects are not well understood. Of particular concern is the risk to children whose skin more readily absorbs compounds.

Nano materials are thought to bind to the body's DNA and can trigger chronic inflammatory processes. They can damage the lungs, for example causing scarring called fibrosis. It is these chronic inflammatory processes which may, over time, increase the risk of cancer. Interestingly, many tube shaped nano materials seem to behave in a similar way to asbestos - but this is not yet well understood and further research is required

## Engineered Nano Materials (ENM)

required. There are some important features of nano materials which are unknown at this time. This includes how long they stay in the environment, whether they accumulate within their environment, and, importantly, within the food chain. The exact method of human metabolism is also not yet well understood.

### Where are ENM's found?

Nano materials are used in cosmetics, sunblocks and specialist paints such as antifouling marine paints. Interestingly, the majority of the patents in the world are owned by cosmetic companies. Nano materials are also used in glass, batteries and military body armour. Nano materials are even found in clothing for example, socks, to prevent them smelling too much.

One of the most commonly used nanomaterials is titanium dioxide. Titanium dioxide is a mineral that is present in our natural environment. It is milled, or can be synthesised, to produce particles on the micro-scale, or smaller on the nano-scale.

Titanium dioxide is used in sunscreens to reflect and scatter UV light. Not only does it protect the skin from UV light extremely well, the nano-form also has the added benefits in the formulation of being easier to spread and also appearing transparent - so reducing whiteness.

Carbon black, an intense cosmetic colorant, can be used in the nano-form and is a good example of how reducing the pigment particle-size can alter the strength and opacity of colour.

Europe has passed laws that require most nano-ingredients in sunscreens and cosmetics to face new safety testing and mandatory labelling. Whilst these laws are there to protect you, there can be no guarantee that future research does not show the harmful effect of nanoparticles. It's also important to note NZ and Australian laws do not currently make companies label nano-ingredients.

### Who is at Risk?

Various occupational groups may be at risk from these compounds including laboratory staff, factory workers, fire-fighters, waste disposal workers, medics, defence personnel. It is felt normal personal protective equipment may be of little use against nano-materials. It's even difficult to measure them within the environment.

There are some things that can be done to reduce exposure to these compounds including using them in a fume cupboard, minimising the number of staff handling them, keeping them wet or damp and providing respiratory protection (for emergencies only) if possible. Other personal protective equipment (e.g. gloves, overalls) and single use disposable gloves should be used. At least 2 layers of gloves are recommended.

Many cosmetic companies have been known to use nano-materials in cosmetics. Many of the major cosmetic brands do use them in their cosmetics or during the manufacturing process. An internet search will provide you with further reading on this.

For those of us using cosmetics, if you are concerned, the only option open to you as an informed consumer, is to use products which specifically state there are no nanoparticles present. Only then can you be certain you are protecting your health and your skin.

If you think your staff may be exposed to nano materials or if you want any further advice, please contact us.

The general health information in this publication has been researched using reliable sources and is believed to be correct. However individual situations differ and no liability of any kind is undertaken to any person in respect of the information produced. Decisions on your own or others personal health and medical care must be made in consultation with your doctor. These materials are not intended to be legal advice. Therefore, readers should not rely on anything stated, and the author is not liable for any errors or omissions, in the materials in respect of a particular issue or circumstance. The reader must seek his or her own legal advice.