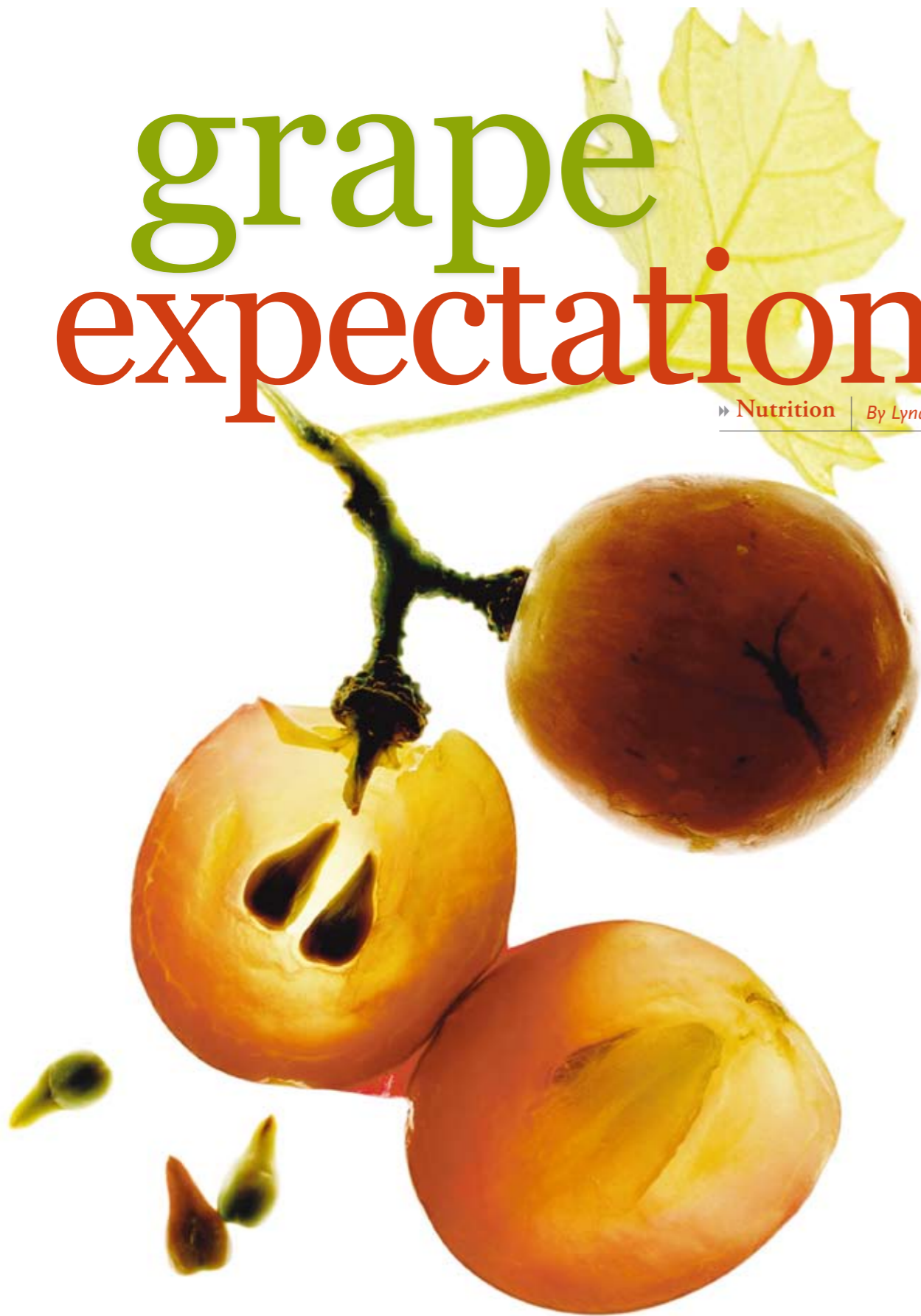


grape expectations

» Nutrition | By Lynda Wharton



Is grape seed extract a potential wonder drug? Lynda Wharton researches the benefits of grape seeds and comes up with some heartening results

If you're the kind of person who laboriously spits out every single annoying little seed when you're indulging in the pleasures of a succulent grape, read on... and be prepared to be amazed! Once you realise the nutritional and antioxidant powerhouse you're missing out on, you'll never reject them again!

Grape seed extract (GSE) comes from the seeds of red grapes and is a rich source of powerful antioxidant compounds called oligomeric proanthocyanidins, or OPCs for short. They belong to a group of antioxidant compounds called polyphenols or flavonoids.

While grape seeds are a particularly concentrated source of OPCs, the same compounds are also found in various other fruits and vegetables, red wine, green tea and pine bark extract. In fact, in the world of nutritional medicine, there has long been discussion over the various merits of grape seed extract in comparison with pine bark extract. While they are both powerful antioxidants, grape seed extract contains 7% – 15% more OPCs than pine bark.

Red wine has earned its reputation as a health food (in moderation!) largely as a result of its polyphenol content. It is a key player in the "French Paradox" – the observation that many French people

consume a diet high in saturated fats, yet have a low incidence of cardiovascular disease. It is thought that the regular consumption of antioxidant-rich red wine is the main reason for this unusual state of affairs.

Red grapes are rich in antioxidant compounds variously called flavonoids, catechins, tannins or proanthocyanidins. However, while sipping an exquisite red is a pleasurable way of imbibing antioxidants, supplementing with concentrated grape seed extract gives you many times more protection without the health risks associated with regular or excessive alcohol consumption. You could, of course, include red grapes in your diet, but you would have to consume 500gm to 750gm of seeded red grapes to obtain the same antioxidants

and a host of other everyday occurrences – free radicals attack and damage the fatty membranes surrounding every cell in the body. It is widely acknowledged that excessive free radical activity contributes significantly to chronic and degenerative conditions such as heart disease, cancer, Alzheimer's, arthritis and premature ageing.

To date, the majority of scientific research into the merits of grape seed extract has been conducted in test tube or animal experiments, but nevertheless, results have been impressive. Work has examined the effect of adding grape seed extract to human breast, lung, stomach, colon and prostate cancer cells in a test tube, where it effectively caused the abnormal cells to die, while leaving the healthy ones unharmed and growing as usual. Grape

Grape seed extract has far more potent free radical scavenging power than traditionally revered antioxidant nutrients

as you'll find in one 50mg tablet of grape seed extract.

Grape seed extract also has far more potent free radical scavenging power than traditionally revered antioxidant nutrients such as vitamins C and E. Free radicals are unstable molecules that are missing an electron, and we need antioxidants to keep the destructive effects of these troublemakers in check. Constantly produced in our bodies as a result of energy generation – as well as from stress, environmental pollution, sunlight exposure

seed extract may also be effective in preventing the damage to human liver cells caused by chemotherapy.

Could grape seed extract protect cells from the harmful, damaging effects of tobacco? Smokers and second-hand smokers exposed to this carcinogenic cocktail experience cell damage, DNA damage and cell death. However, when smokers are given antioxidants such as vitamins C, E, and grape seed extract, cellular death can be reduced by up to 85%. Grape seed extract has also been found to be

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250% more effective than vitamins E and C in protecting against tobacco-induced cellular damage, but maximum protection is seen when all three compounds are given simultaneously. The proanthocyanidins in GSE have the ability to permeate the fat-soluble membranes surrounding cells, too, giving them the ability to confer direct antioxidant protection to every cell in the body.

The effects of GSE are no less dramatic when it comes to preventing cardiovascular problems. Animal studies have repeatedly shown that GSE supplements protect potentially damaging LDL cholesterol from oxidation – it is now thought that it's not the presence of LDL cholesterol in arteries per se, but the oxidation of this cholesterol that leads to cardiovascular disease. The free radicals produced appear to be the cause of damage and inflammation in the arterial linings, which ultimately leads to the process of arterial hardening.

As well as protecting the lining of the arteries from damage, GSE has been shown in animal studies to lower blood cholesterol levels and shrink the size of cholesterol deposits in the arteries. High blood pressure also benefits from GSE supplementation, according to some research, although human studies are still needed to confirm this result.

Correlating all the research, it's easy to

come to the conclusion that GSE is a must for every baby boomer intent on staying well through the inevitable process of ageing. Besides its likely cardiovascular advantages, it offers benefits for the brain and eyes. Macular degeneration is a devastating eye disorder, which can develop with ageing and cause blindness. GSE has been shown to guard against this condition, as well as protecting the blood vessels in the retina, which can be affected by diabetic conditions, leading to blindness from diabetic retinopathy.

While we're on the subject of eyes, reach for the grapeseed if you're suffering from photophobia (light sensitivity) or poor night vision. The antioxidant properties in GSE have been shown to cross the blood/brain barrier, acting on the nerves and offering antioxidant help for these conditions.

GSE is an extremely safe supplement, with no reported side-effects. To help keep your body healthy and protect against free radical damage, the recommended dose is 25 – 150mg of a standardised extract (that's 40% – 80% proanthocyanidins) one to three times a day. However, in common with many other herbs and antioxidants, it decreases the stickiness of the blood, thus increasing bleeding time. Therefore, it is contraindicated prior to surgery, if you are on blood-thinning medication or have a blood-clotting disorder. ◀◀

Grape Seed Extract may be beneficial in the following ways:

- * It has powerful antioxidant properties.
- * It prevents the oxidation of cholesterol, which leads to arterial clogging and heart disease.
- * In animal and test tube studies, it has demonstrated an ability to kill cancer cells.
- * It improves vascular strength, and is used in the treatment of capillary fragility, circulatory disorders, varicose veins and ulcers.
- * It reduces oedema and swelling.
- * It strengthens retinal capillaries and is indicated in the prevention of diabetic retinopathy.
- * It regulates blood sugar.
- * It crosses the blood/brain barrier, acting on the brain and spinal nerves.
- * It binds with collagen fibres, increasing muscle flexibility and the elasticity of tendons and ligaments.
- * It may help to prevent macular degeneration.
- * It works as a natural anti-inflammatory.
- * It works as a natural antihistamine.

» Wellington fitness news

Mish on a mission - again

The Fitness Life Awards NZ PT of the Year (2006 and 2007), Mish McCormack, has launched an initiative to "put the well back in Wellington".

Her latest campaign is to encourage Wellington city workers to get out of their chairs and get moving in 2008.

Mish's company, Mishfitness Limited, has teamed up with Wellington City Council to fight the growing obesity epidemic, by holding free weekly exercise sessions at Frank Kitts Park every Wednesday (except Waitangi Day) for six weeks from 30 January until 5 March.

Wellington Mayor Kerry Prendergast says everyone knows that regular physical

activity helps improve our quality of life. "Unfortunately our busy lives often don't leave time for physical activity. This is a trend we need to reverse."

The exercise sessions will involve choreographed walking and easy bodyweight resistance exercises led by Mishfitness personal trainers.

Mish McCormack, says the 30-minute exercise sessions will be heaps of fun. "We're looking forward to having the Mayor and other celebrities participate. You may even be rewarded with a spot prize.

"Fit and healthy employees are more energetic, creative, innovative and productive and we hope that Wellington employers actively encourage their staff to



take part in this exercise programme. More than 50 percent of New Zealanders are now overweight or obese and are putting themselves at risk of developing a range of diseases, including heart disease, type 2 diabetes, stroke and high blood pressure," says Ms McCormack. "Just 30 minutes of physical activity each day can build a solid foundation for improved health and well-being, so grab a workmate and get down to the waterfront for 30 minutes of exercise."

The first Putting the Well in Wellington exercise session will be held at 12.15pm on Wednesday 30 January.