

Alcohol and activity are heart smart

New Danish research has supported previous study findings which point to the benefits to the heart of physical activity and small amounts of alcohol.

Data on 11,914 male and female participants was gathered and analysed for the Copenhagen City Heart Study conducted by the National Institute of Public Health at the University of Southern Denmark. During a follow-up averaging twenty years, 1,242 people died from heart disease and 5,901 died from other causes.

Physical activity was associated with a lower risk of heart disease among both men and women, as was moderate alcohol consumption. Heavy drinkers and non-drinkers displayed the same likelihood of dying from heart disease.

Differing combinations of activity and alcohol consumption levels had various effects. Physically active people who had at least one drink a week, for example, displayed a 44 to 50 per cent lower risk of dying from heart disease than their non-drinking but physically active counterparts. In fact, physically active individuals who had a drink each week were found to have a 33 per cent lower risk of developing any terminal condition.

The researchers, led by Morten Gronbaek, director of research at the National Institute, said, "Physical activity and a moderate alcohol intake can lower the risk of fatal heart disease and all-cause mortality. But neither physical activity alone nor alcohol intake can completely reverse the increased risk associated with physical inactivity and alcohol abstention. Thus, both physical activity and alcohol intake are important to lower the risk of fatal heart disease and all-cause mortality'.

Dr David Katz, director of the Prevention Research Centre at Yale University School of Medicine said that the research backed up the findings of numerous previous studies; 'The key messages of this study, based on a large cohort, are reaffirmations of what we already know, not revelations. Moderate alcohol intake reduces the risk of heart disease. Moderate physical activity does so, too, and even more powerfully. Combine the two, and the benefits are additive' he said.

We'll drink to that!

Source: *European Heart Journal*

Menopause symptoms eased by exercise

American research has found that exercise can help to lessen some symptoms of menopause, although it cannot remedy hot flushes.

Pennsylvanian researchers discovered that physical activity can assist post-menopausal women in coping with anxiety, stress and depression. Study author Deborah Nelson, a professor of public health and obstetrics and gynaecology at Temple University in Philadelphia, said that the eight-year study, which commenced in 1996, found that increased levels of exercise correlated with results showing decreased levels of stress; 'The level of anxiety, stress and depression were significantly lower among physically active, postmenopausal women compared to postmenopausal women in the lowest level of physical activity'.

Although the study failed in its objective of establishing a relationship between exercise and hot flushes, the effect of activity on stress was deemed to be an equally, if not more, significant finding as it is stress and depression that can have a longer term negative impact on women.

The researchers studied 380 women with an average age of 42 who walked for differing amounts of time each day. 'We know that physical activity is helpful in reducing anxiety and stress. What was surprising was that it wasn't a lot of physical activity. It was mainly walking. It is encouraging that it's something women can incorporate into their daily

routine. The next question is; would it be even more helpful if they were involved in a higher level of physical intervention?’

Dr Nieca Goldberg, medical director of the Women’s Health Program at New York University Medical Centre said ‘It’s not surprising that exercise doesn’t help hot flushes. The reason why there are hot flushes is because the brain’s centre for temperature is altered by the lower levels of hormones’. Since exercise raises the body’s temperature, she explained, it is logical that it wouldn’t make women experiencing hot flushes feel any cooler.

Source: *Medicine & Science in Sports & Exercise*

Cat-nap to boost mental fitness

A new US study suggests that grabbing forty winks at lunchtime may aid the memory, providing the facts have been well learned in the first place.

‘Declarative memory’ refers to textbook-style learning, as opposed to skill-based learning which is called ‘procedural memory’. According to researchers at Harvard Medical School’s Centre for Sleep and Cognition, the sleeping process appears to help cement declarative memories, thereby making them simpler to recollect. Lead researcher Matthew Tucker, a Harvard postdoctoral fellow, commented, ‘Sleep appears to have an impact on what is learned well, but not so much when one is not motivated to learn’.

The study involved 33 people being trained in specific declarative memory tasks. Post-training, 16 participants had a short sleep, and the remaining 17 stayed awake watching a movie. All of the participants were then tested later in the day in tasks which included memorising words, a maze and a line drawing.

The researchers found that the group which took a nap displayed improved performance in the declarative tasks when compared to the group that stayed awake. This effect was only noticeable, although, in those who had thoroughly learned the task in the first place. ‘The nap group performed better overall than the awake group, but the difference wasn’t significant’ Tucker said, ‘However, when we looked at individual performance during training, we found those who did better during training benefited from napping’.

Interestingly, individuals were found to perform well in only one task rather than in all three; ‘There is likely a basic level of learning that has to be attained before sleep can have an impact on performance’ Tucker concluded’.

Source: Sleep

Limit stroke risk with aerobic exercise

Data analysis has revealed that moderate aerobic activity can considerably reduce the risk of stroke.

The large-scale study, carried out by the Prevention Research Centre at the University of South Carolina Arnold School of Public Health, showed that the risk of stroke, for both men and women, could be lowered by up to 40 per cent if thirty minutes or more moderate aerobic activity, such as a brisk walk, were undertaken five days a week.

Study author, and director of the research centre, Steven Hooker said that the study was the first to suggest a significant independent link between cardiorespiratory fitness (CRF) and fatal and nonfatal stroke in men and nonfatal stroke in women.

Stroke, which occurs when the brain is deprived of oxygen, is Australia's second single greatest killer and a leading cause of disability. Every year Australians suffer 53,000 new and recurrent strokes. Men are more likely than women to suffer a stroke, though strokes still kill more women than breast cancer.

Data from over 60,000 participants, of whom three quarters were men and one quarter women, was gathered and analysed for the 30-year study. During the study period, 863 people (692 men and 171 women) had strokes.

The study showed that men in the top 25 per cent of CRF (as gauged by a treadmill test at the outset of the study) had a 40 per cent lower risk of stroke than men in the bottom 25 per cent. Women in the top 25 per cent displayed a 43 per cent lower stroke risk than their counterparts in the lower 25 per cent.

Those in the middle ranges also showed decreased stroke risk; 'We found that a low-to-moderate amount of aerobic fitness for men and women across the whole adult age spectrum would be enough to substantially reduce stroke risk' said Hooker.

Source: *HealthDay News & The National Stroke Foundation Australia*

Aqua exercise eases chronic fibromyalgia pain

New research from Spain and Portugal has indicated that regular physical activity in a heated swimming pool can help people suffering from the painful condition fibromyalgia.

The symptoms of fibromyalgia, which has no known cause, range from chronic pain and muscle, ligament and tendon tenderness to sleeping disorders, neck and shoulder pain, anxiety and depression.

Treatment for the condition, which affects women far more than it does men, currently involves the use of painkillers, antidepressants, relaxation therapy and exercise.

Researchers at the University of Extremadura in Spain and the University of Evora in Portugal studied 33 women with fibromyalgia over an eight-month period. One group of 17 women was allocated weekly hour-long aquatic training sessions, three times a week in a heated pool for the duration of the study, while the other group partook in no water exercise.

The results of the study showed that the participants who engaged in aquatic exercise reaped health benefits by reducing the symptoms of fibromyalgia. The researchers concluded, 'The addition of an aquatic exercise program to the usual care for fibromyalgia in women is cost-effective in terms of both health care costs and societal costs... appropriate aquatic exercise is a good health investment'.

The same groups of researchers had previously found that a short-term exercise program eased the symptoms of fibromyalgia, but that the pain returned after the exercise regime finished.

Source: *Arthritis Research & Therapy*

Massage away post-surgery pains

New research from the US shows that a daily massage can help to ease the pain and anxiety experienced by those recovering from major surgery.

Motivated by concerns about the pain and suffering that surgery can produce, senior study author Dr Daniel Hinshaw, professor of surgery at the VA Ann Arbor Healthcare System in Michigan, randomly assigned 605 patients undergoing chest or abdominal surgery to one of three groups.

One group received a daily 20-minute back massage, the second received 20 minutes of individual care (but no massage) while the third group received standard care. All of the participants were required to record their feelings of pain and anxiety using a scale of 1 to 10.

It is normal for a patient to experience peak pain in the first day and for this to then decline, but Hinshaw reported that the patients undergoing the daily massage recorded a faster rate of decline in pain than the participants in the other groups. Massage also appeared to bring about a short term decline in anxiety; 'In patients getting massage, the acute response was equivalent to a [dose] of morphine, which was pretty remarkable' Hinshaw said. However, no long term differences in anxiety levels, duration of hospital stay or medication usage were recorded.

Susanne Cutshall, a clinical nurse specialist at the Mayo Clinic in Minnesota, said that a post-surgery massage service had been made available to patients on request for the past few years and that it appeared to be beneficial; 'Most people, it helps. It may make the pain a little better, they might sleep better, they might be less anxious' she said.

Source: Archives of Surgery

New study highlights pelvic floor disorder

A new US study of over 4,000 women aged 25 to 84 has found that one in three American females suffers a pelvic floor disorder.

The symptoms of pelvic floor disorders include a frequent urge to urinate, incontinence and dropped pelvic organs.

Of the 4,000 women studied (80 per cent of whom had given birth), 25 per cent reported suffering anal incontinence, 15 per cent stress urinary incontinence, 13 per cent from overactive bladder and six per cent from pelvic organ prolapse. Previous research by the same team found that women who had given birth vaginally had double the rate of pelvic floor disorders compared to those who had had caesareans or who had not yet given birth.

Study author Jean Lawrence, a research scientist at the Kaiser Permanente department of research and evaluation in southern California, said, 'These conditions really affect a woman's quality of life. Many women think this is just something they have to deal with as they age, and there isn't anything they can do about it, but that's not true'.

Co-author of the study, Dr Karl Luber, a urogynecologist in the department of obstetrics and gynecology at Kaiser Permanente San Diego Medical Centre, said, 'One of the myths surrounding pelvic floor disorder is that it affects only older women, but the truth is these conditions are extremely prevalent and extremely debilitating. But because the subject matter isn't cocktail conversation, women feel isolated and don't seek support and treatment. Among the available options for treatment for these common disorders are physical therapy to strengthen your pelvic floor muscles, devices that can be fit to support your vaginal walls, and surgery. Many of today's surgeries are very non-invasive and can be done as an outpatient'.

Source: Obstetrics & Gynecology

Skipping brekkie could lead to weight gain

Another American study has supported previous findings which suggest that teenagers who eat a filling, healthy breakfast are less likely to be overweight or obese.

Study co-author and associate professor of epidemiology and community health at the University of Minnesota School of Public Health, Mark Pereira, said, 'There's a pretty significant inverse association between how frequently kids report eating breakfast and how much weight they gain over time, and we took into account other dietary factors and physical activity. It's interesting to note that the kids who eat breakfast on a daily basis overall have a much better diet and are more physically active'.

Over a third of US teenagers are overweight or on the verge of becoming so and this is a trend which has previously been linked with breakfast-skipping, as those who do not start their morning with a proper meal are more likely to snack, and snack unhealthily, throughout the day. It is estimated that up to 34 per cent of children and adolescents do not regularly eat breakfast and this percentage appears to increase with age.

'There has been quite a lot of published scientific literature already on the relationship between breakfast habits in both children as well as adults and obesity risk. It's pretty darn consistent in the literature that people who eat breakfast are at lower risk for obesity, but most of those studies have some methodological limitations'.

The new study, however, attempted to overcome the limitations of previous studies by being cross sectional and studying subjects over a period of several years. Over 2,000 young people were studied over a five year period, and detailed information about their eating behaviour, weight, height, body mass index and physical activity was recorded. The findings indicated that the more often an individual consumed breakfast, the less likely they were to be overweight, although Pereira said that no definitive statements about cause and effect could be made.

Dr Peter Richel, chief of paediatrics at Northern Westchester Hospital Centre in Mount Kisco, New York, said; 'What happens is that total fat and saturated fat as a percentage of total daily energy were lower in the breakfast eaters compared with breakfast skippers. This really shows that we have the potential to improve energy balance and weight control with healthy breakfast consumption. We're not talking pop-tarts'.

Source: *Pediatrics*

Soaking spuds before frying cuts cancer agents

A new British study has found that soaking potatoes prior to frying them reduces the formation of the suspected carcinogen acrylamide.

Previous research has indicated that acrylamide, which is present in many foods, may harm health and cause cancer in animals. It is created when foods rich in starch are cooked at a high temperature (i.e., when they are fried, baked, grilled or roasted).

For the study, researchers tried three different methods of preparing raw French fries prior to cooking them. One batch was washed, another was soaked in water for half an hour and the third was soaked for two hours. These processes had the effect of reducing levels of acrylamide by 23 per cent, 38 per cent and 48 per cent respectively, provided the fries were cooked to a light colour.

Research team leader Rachel Burch, of Leatherhead Food International, said, 'There has been much research done by the food industry looking at reducing acrylamide in products but less so on foods cooked at home, and we wanted to explore ways of reducing the level of acrylamide in home cooking'.

Source: *Journal of the Science of Food and Agriculture*

Vitamin D may help prevent falls

Australian research has found that Vitamin D2 supplements may help reduce the risk of falls among elderly women.

In the study, led by Dr Richard Prince of the Sir Charles Gairdner Hospital in Nedlands, WA, it was stated that; 'Approximately one-third of women older than 65 fall each year, and six per cent sustain a fracture as a result of the fall. In addition, fear of falling is a major problem in older people'.

Vitamin D is produced by the body in response to sun exposure, and as the study was conducted in the sunny climes of WA, researchers studied 302 women with blood vitamin D levels lower than the median for the area (24 nanograms per millilitre). The women were aged between 70 and 90 and had all experienced falls in the previous year.

The women were all given calcium citrate daily, and half of them were also given vitamin D2, while the other half received a placebo. Over the duration of the study 53 per cent of the women in the vitamin D2 group fell at least once, while 63 per cent of women in the placebo group had a fall. The researchers translated the findings into a 19 per cent decreased likelihood of falling if vitamin D2 is taken regularly.

The authors noted that the results also varied according to season, and that when added to high calcium intake, vitamin D supplementation was linked with a 23 per cent reduced risk of falling in winter/spring, bringing it to the same level as summer/autumn; 'When those who fell were grouped by the season of first fall or the number of falls they had, ergocalciferol (vitamin D2) treatment reduced the risk of having the first fall in winter and spring but not in summer and autumn, and reduced the risk of having one fall but not multiple falls. It is interesting that the ergocalciferol therapy effect was confined to those who were to sustain one fall but not those destined to have more than one fall. Older people who fall frequently tend to have more risk factors for falling, including greater degrees of disability and poorer levels of physical function' they concluded.

Source: *Archives of Internal Medicine*

Fat rats binge on artificial sweeteners

Research in rats has found that artificial sweeteners may contribute to weight gain by confusing the body's ability to control appetite and recognise when it will soon be full.

Study author, Susan Swithers, an associate professor of psychological sciences at the Ingestive Behaviour Research Institute at Purdue University, said, 'We found that the rats that were getting artificially sweetened yogurt gained more weight and ate more food. The take-home message is that consumption of artificially sweetened products may interfere with an automatic process. We often will stop eating before we've been able to absorb all of the calories that come from a meal. One of the reasons we might stop eating is that our experience has taught in the past that, 'After I eat this food, I'll feel this full for this long'.

The researchers said that, although they cannot be certain, the weight gain may be explained by the shortfall between the taste indicating that calories are coming, and the actuality of that taste being followed by a lower caloric intake. This may confuse the body's digestive system, causing it to not increase its metabolic rate by as much the next time the flavour is tasted.

Two groups of rats were fed yoghurt sweetened with either glucose (a sugar) or saccharin (artificial sweetener). The rats that consumed the saccharin-sweetened product ate more overall and increased more in weight. Swithers also noted that the body temperatures of the fatter rats also did not rise as much as it did among the other rats, and said, 'That might be a kind of measure of energy expenditure, suggesting not only are the animals eating more calories, they may be expending or burning up fewer calories'.

Although it appeared that the rats bodies were 'learning' that the sweet taste did not mean more calories and were therefore consuming more to counteract this, there is dispute about whether such behaviour would translate to humans.

President of the trade group Calorie Control Council, Lyn Nabors, said that the research had 'no basis in science' and 'no relation to the human experience whatsoever'.

Source: *Behavioral Neuroscience*

Earth hour 2008 – A global event to combat climate change

After you've spent the day expending energy with your clients and participants on Saturday 29 March, head home and start saving some.

To raise awareness of the climate change issue and send a powerful message that it's possible for individuals to take action and reduce greenhouse gas emissions, WWF-Australia has again planned Earth Hour to take place between 8 and 9pm.

Many cities around the globe are participating in Earth Hour 2008 including Sydney, Melbourne, Brisbane, Adelaide, Canberra, Perth, Chicago, Toronto, Tel Aviv, Copenhagen, Christchurch, Manila and Suva. It's a global event and everyone can join in.

On 31 March 2007, 2.2 million people and 2,100 Sydney businesses turned off their lights for one hour – Earth Hour. This massive collective effort reduced Sydney's energy consumption by 10.2 per cent for one hour, the equivalent effect of taking 48,000 cars off the road for an hour.

Earth Hour 2008, with its international contingent, hopes to spread the message that reducing the world's emissions is a shared global responsibility. WWF-Australia is inviting towns, cities and communities around the world to sign on.

Earth Hour is about taking simple steps everyday that collectively reduce carbon emissions – from businesses turning off their lights when their offices are empty to households turning off appliances rather than leaving them on standby.

To find out more about Earth Hour, visit the official website www.earthhour.org and sign up.

Source: *WWF-Australia*

Join the bite and help the fight against diabetes!

April is the month when people from all walks of life in NSW get together for a 'Great Australian Bite,' helping to raise money to find a cure for the 740,000 Australians who live with diabetes.

To host a 'bite', all you need to do is;

- Register to host a 'bite' anytime during April 2008
- Invite workmates, friends or family to share a 'bite' to eat
- Ask them for a donation to help the fight against diabetes.

The bite can involve any meal held during the month of April. It's so easy-share a 'bite' with mates at work on a coffee break, have the girls over for a video night or even get the local neighbourhood together for a massive BBQ, the choice is yours.

Remember, no matter how large or small the bite, participants will be making a donation to Diabetes Australia-NSW and doing their bit to support people with diabetes and help fund research. All funds raised will directly assist diabetes research.

To be a part of the fun this April, register to host a 'bite' by calling 1300 136 588 or visit www.greataustralianbite.com.au

City Chase pounds the streets of Sydney

A thousand adventure-hungry participants are expected to take part in the 2008 Volvo City Chase when it hits Sydney CBD on Saturday 29 March.

City Chase, the World's Largest Urban Adventure Series, will run across 25 international cities in 2008, with Sydney partaking for the third consecutive year. From Singapore to Boston to Calgary, competitors will complete the part obstacle course, part scavenger hunt, in the fastest possible time.

The event will transform Sydney into a series of twisted 'chase points' similar to challenges on shows such as Survivor and The Amazing Race. On the day competitors will receive a clue sheet containing information on the whereabouts of chase points scattered throughout the city. Once competitors solve the clue and arrive at the location, they must complete a challenge before proceeding to the next chase point. The first team to complete ten chase points and make it back across the finish line will be declared the 2008 Volvo City Chase champions.

With past chase points including strip lawn bowls, pole dancing and photos with the Prime Minister at Kirribilli House, Volvo City Chase organisers have promised to up the ante for the 2008 event.

'Sydney's 2008 chase points will be tougher, cheekier and most importantly, more memorable' said Ross Wall, the Volvo City Chase event director; 'We are coming off the back of a World Final in Rome, where competitors were required to cycle around the city dressed in a Borat Mankini – it's time to answer the call and push the boundaries'.

'Australians have certainly embraced the sport, with participant numbers increasing by 80 per cent from the inaugural event in 2006' said Canadian City Chase founder Nick Jelinek; 'The Aussie spirit and determination has seen Australia take out the World Championship in 2006 and place second in 2007 – we have come to expect big things from the Australian teams'.

In 2008 online sponsorship will be utilised for the first time with competitors creating their own team page upon registration. In the lead up to the event, friends and family will be able to visit the secure page to sponsor the competitor and leave messages of support. All funds raised in this manner will be donated to Sydney Children's Hospital.

The Volvo City Chase is open to all adventurous Sydneysiders with registration (costing \$180 per team) now open at www.citychase.com

Help to make a \$10,000 haircut!

Australian Fitness Network's own Project Manager, Analee Matthews, has traded in her locks to raise money for the World's Greatest Shave event. As part of this annual fundraising event for The Leukaemia Foundation, Analee is encouraging everybody who has ever been affected by cancer or its impact on a loved one, to donate to the cause. The World's Greatest Shave occurs this weekend and aims to help raise funds and awareness for the Leukaemia Foundation and other blood-related cancers. To sponsor Analee, please visit www.worldsgreatestshave.com and search for the name: ANALEE MATTHEWS (one N and two Ts please!) from Harbord, NSW, OR you can bPay your donation using Biller Code: 939488 with Reference: 20062550. All donations over \$2 are tax deductible and will be receipted. Please help make a difference; we can't help everyone, but we can help someone!