

PT NEWS AND LATEST RESEARCH

WORK UP A SWEAT – AND SOME NEW BLOOD VESSELS



New German research has indicated that exercise may help the heart to grow stronger and repair itself by instigating the growth of new blood vessels.

Presenting the findings to the European Society of Cardiology, Dr Robert Holtriegel of the Leipzig University in Germany reported that individuals with serious heart failure who cycled for half an hour a day for 16

weeks produced new stem cells in their bones and also exhibited more small blood vessels in their muscles. Non-exercisers in the 37-person study displayed no change in their blood vessels or muscles.

Heart failure patients tend to be aged over 70 and often have great difficulty in walking more than a few steps. Despite the obvious limitations and difficulties these individuals would experience, the study researchers believe that this population would benefit from gentle walking or cycling after being assessed by doctors and prescribed limited exercise regimens.

Discussing the German study, Dr John Cleland, a heart failure specialist and spokesman for the European Society of Cardiology, said 'We're not talking about patients with acute heart problems. This is to prevent people from getting into a cycle of deterioration where they're afraid to exercise and they just avoid any activity that leaves them out of breath'.

Exercising increases the amount of blood flowing to the muscle being used by 1,000 per cent, putting strain on the heart's arteries and muscles. To relieve this stress, stem cells are dispatched, and these may also repair damage. By continuing to exercise, the stem cells help the body adapt to the stress by building new blood vessels and strengthening muscles – a process which must be maintained with regular exercise.

Those with heart failure should increase the strength of their heart by pushing the boundaries of their fitness and exercising daily until they are out of breath. Dr Freek Verheugt, a cardiologist at the University of Nymegen in the Netherlands concurred, saying 'People think that if they have heart failure, then they're at the end of the road and they can't exercise. But this study shows that exercise can work to produce new blood vessels, even in patients with serious heart disease'. ■

Source: IHRSA

GRUNTING TESTS BOUNDARIES OF GYM ETIQUETTE

In the weights area of most fitness facilities the sounds of grunting and noisy exhalations are as commonplace as the sweaty singlets, but in the US lines have been drawn dividing the grunTERS and the tight-lipped sound-stiflers.

The Planet Fitness chain of clubs has a 'no-grunting' policy, which it enforced in 2006 when one of its members, Albert Argibay, was escorted from a New York club after a fellow member complained about the noise he was emitting while weightlifting. The incident led to acrimony between the club and Argibay, resulting in the revoking of his membership.

The affair spawned much debate, and the rediscovery that the matter of grunting has also been the subject of studies. Certified



strength and conditioning specialist and the professor and chairman of physical therapy at Hardin-Simmons University in Texas, Dennis O'Connell, has carried out two such studies in which weight lifters were given exercises to

do and told to either remain silent, or to grunt if they felt the need.

'Very experienced lifters that normally grunted when they lifted did have about a

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one per cent improvement with grunting' O'Connell reported; 'A group of college football players – they, of course, also lifted weights fairly regularly – showed a two per cent improvement. And the untrained group – graduate students in physical therapy – had about a five per cent increase' he added. Although the findings were statistically of very small significance, O'Connell noted that because some weight lifters did appear to experience increased bursts of power when grunting, it was not

in their best interests to be silenced.

It has been theorised that grunting quiets inhibitory nerve cells in the spinal cord, which would usually impede muscles ability to contract and generate force, but this is disputed by many, including exercise physiologist Larry Birnbaum; 'As far as anything going on physiologically [with grunting], I'm not aware of any data or studies that have revealed that' he said; 'The only thing I can think of is that it's a psychological thing. But psychology is very

important in sports in general -- if you think you can, it raises the possibility that you can'.

Sports psychologist Belisa Vranich, agreed, saying; 'Some people grunt to give others the impression that [the grunTERS] are doing a lot of work. It's just like flexing and strutting, trying to attract attention. The other reason is a more physical one – they're not breathing properly. In order to grunt, they have to hold their breath and exhale forcefully'. ■

Source: *HealthDay News*

CARDIO AND RESISTANCE COMBO BEST FOR DIABETES



A recent study has shown that a combination of resistance training and cardiovascular exercise is the most effective way of beating type 2 diabetes.

Researchers at the University of Calgary, in Canada found that the combination regime appeared to be more effective at controlling blood sugar levels than cardio or weight training exercise alone. Lead researcher and associate professor

of medicine and cardiac sciences at the university, Dr Ronald Sigal, said the findings were interesting because 'most other studies have looked at just one kind of exercise, either aerobic or resistance'.

For the 26 week study, 251 adults aged between 39 and 70 with type 2 diabetes, were evaluated. No members of the group were regular exercisers at the start of the study. The participants were divided into four groups; the first group undertook 45 minutes of aerobic training three times a week; the second group did 45 minutes of training three times a week; the third did 45 minutes of both cardio and resistance thrice-weekly. The fourth control group did not exercise.

Changes in the A1c value, which measures blood sugar concentrations, were recorded in the groups. A one per cent decline in A1c

value is linked to a 15 to 20 per cent decrease in heart attack or stroke risk and a 25 to 40 per cent decrease in diabetes-related complications such as kidney or eye disease.

Blood sugar control improved in all three exercise groups. The single activity exercise groups saw their A1c value drop by 0.5 per cent (equating to a 7.5 to 10 per cent decrease in heart attack or stroke risk and a 12.5 to 20 per cent decrease in diabetes-related complications). The participants in the cardio/resistance group experienced 0.97 per cent drop in their A1c value, compared to the control group who displayed no change in their values, leading Sigal to conclude; 'There is additional value to doing both resistance and aerobic exercise'. ■

Source: *Annals of Internal Medicine*

EXERCISE LOWERS WOMEN'S HEART DISEASE RISK



A recent US study has shown that that about 60 per cent of the protection that women gain against stroke and heart disease is derived from its effect on just a few particular risk factors.

The research, published in the journal *Circulation*, used data from 27,000 women who partook in the Women's Health

Study. With an average age of 55 years, the participants' cardiovascular risk factors and exercise levels were monitored for 11 years.

Those women who exercised the most were found to be 40 per cent less likely to suffer stroke or heart attack than the participants who did little or no exercise.

Lead author Dr Samia Mora, instructor of medicine at Harvard Medical School, said, 'Regular physical activity is enormously beneficial in preventing heart attack and stroke. We found that even modest changes in risk factors for heart disease and stroke, especially those related to inflammation/ hemostasis and blood pressure, can have a profound impact on preventing clinical events. This study is the first to examine the importance of a variety of known risk factors in explaining how physical activity prevents heart disease and stroke'.

The researchers found that exercise-linked changes in inflammatory and hemostatic biomarkers – fibrinogen, C-reactive protein and intracellular adhesion molecule-1 – had the largest impact, lowering heart attack and stroke risk by one third.

'Inflammatory and hemostatic factors as a group have overlapping functions and roles and, in our study, had the biggest effect in mediating exercise-related cardio protection, more so than blood pressure or body weight' said Mora.

An improvement in blood pressure (27 per cent lowered risk) was the second most important exercise-related benefit. Body mass index (BMI), lipids (blood fats), glucose abnormalities, kidney function, and homocysteine were risk factors which also saw noticeable improvements in exercisers. ■

Source: *IHRSA*

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NEW CENTRE RESEARCHES BACK AND NECK PAIN TREATMENT

A multimillion dollar Australian centre for back and neck pain research and treatment was launched in October after the University of Queensland received a \$2 million grant to establish a Centre for Clinical Research Excellence in Spinal Pain, Injury and Health.

The centre features two community-based clinical research sites where trials of innovative new treatments for spinal pain will be conducted. Its multidisciplinary group of chief investigators will collaborate with a network of Australia's leading spine scientists and provide training for a new generation of spine scientists.

Director, Professor Paul Hodges said back and neck disorders were an important area of study for key economic and social reasons; 'Eighty per cent of the population is affected by these types of conditions, which

impact all age groups. More than one in five Australians suffers from back and neck problems at any time and these conditions are the most common reason for people to be off work. In terms of economic burden on society, musculoskeletal pain and injury is second only to cardiovascular disease'.

Professor Hodges said the funding provided by the National Health and Medical Research Council over five years recognised the need for research that would lead to more effective treatments; 'It is also recognition of UQ's track record of research excellence in this area, which includes internationally recognised experts in the fields of physiotherapy, neuroscience, medicine, psychology and health economics' he said.

There is an opportunity for people in the community with back or neck pain to be involved in the work of the centre and

contribute towards improving knowledge. Executive dean of UQ's Faculty of Health Sciences, Professor Peter Brooks said establishment of the centre recognised the need to raise awareness of musculoskeletal disorders in what has been declared the Bone and Joint Decade (BJD) – 2000 to 2010.

'The World Network of the BJD has just held its annual meeting on the Gold Coast (October 12 to 14). The event, which focused on spinal disorders, attracted several hundred people including health professionals involved in treating back and neck pain and patients. The newly formed centre played a key role in this conference' Professor Brooks said.

For more information about the centre or participating in research studies, call 07 3365 4567. ■

Source: UQ Communications



STRETCHING DOESN'T PREVENT ACHES SAY RESEARCHERS

It's a contentious and much-debated topic, and now a new study has come out on the side of those who say that stretching serves little or no purpose for exercisers. Australian researchers have reviewed the findings from ten separate studies, each involving between ten and 30 participants, and concluded that pre and post-exercise stretching will not prevent sore muscles.

Of the ten studies, nine had been carried out in laboratory conditions, with the time spent stretching in each case varying from 40 seconds

to ten minutes. Using a 100-point scale to assess the level of soreness, the researchers noted no more than a one point reduction in soreness in participants who had partaken in stretching prior to, or after, exercise.

Lead researcher Robert Herbert, of the School of Physiotherapy at the University of Sydney, said, 'The data were remarkably consistent. The available evidence suggests that stretching before or after exercise does not prevent muscle soreness in young healthy adults'. ■

Source: HealthDay News

SUPPORT CANCER RESEARCH WITH SUNSCREEN THIS SUMMER

For sun-loving Aussies, the outdoors is a way of life. But with melanoma skin cancer being one of the most diagnosed cancers among people aged 15 to 44 years (according to the Australian Institute of Health and Welfare and Australasian Association of Cancer Registries), sun protection should be an integral part of everyone's daily skin care routine.

The Cancer Council Australia's National Sun Survey found almost one in five Australian adults are sunburned on summer weekends, with most sunburn occurring when the temperature is between 18 and 27 degrees. This is due to the common misunderstanding that UV radiation isn't as strong on cooler days – when in fact it is not related to temperature. UV radiation cannot be seen or felt.

It is the UV radiation in the sunshine that causes our skin to burn. When UV radiation reaches our skin, it triggers a chemical release that causes the blood vessels to swell and leak fluids, creating inflammation, pain and redness – otherwise known as sunburn – which can lead to premature ageing and melanoma skin cancer.

The Cancer Council Australia's sun care experts have released a wide range of broad spectrum, water-resistant sunscreens to help effectively absorb and reflect UV radiation, allowing us to make the most of our warm climate and open air lifestyle.

'We've created a broad range of sunscreens to suit all types of lifestyles, to be used daily – not just at the beach, but also while gardening in the backyard and even during long picnic lunches' says James Wright, managing director of Skin Health,

makers of The Cancer Council Australia sunscreen; 'A daily sunscreen routine is an important part of living in Australia'.

All The Cancer Council Australia's products undergo stringent SPF (sun protection factor) testing, and purchases help fund cancer research, patient support and education. This summer three new SPF 30+ sunscreens have been added to the range, including the Natural for those with sensitive skin, a reformulated Classic screen with invisible zinc for those who don't like sporting a white smear on their nose and lips, and the Sunscreen Plus Tint which has a golden colour to help highlight where sunscreen has been applied.

For more information on protecting yourself from the sun this summer, and other cancer related topics, visit www.cancer.org.au ■

GROUP EXERCISE & MIND BODY NEWS

CHINESE DRAGON PRACTISES YOGA



As China's economic dragon continues roaring, standards of living are improving and people are spending more time and money on their fitness and wellbeing. The increasingly affluent Chinese middle class in particular appears to be drawn to yoga,

and classes in the mind body practice are springing up throughout China's cities and more developed regions.

Beijing yoga teacher Mimi said, 'Yoga is getting more and more popular among rich young professionals. Five years ago when I started to teach yoga, my students were mostly coaches at gyms or sports schools, but now white-collar workers dominate'.

The 'white-collar' aspect is key, as the All China Federation of Trade Unions has recently warned that more and more Chinese professionals are burning out or dying prematurely from overworking. Although China's own Tai Chi, a combination of gentle martial arts and breathing exercises, may appear to offer some similar mind body benefits as yoga, it is a practice viewed as old fashioned by many of China's

younger professionals, despite it's growing popularity in the West.

Y Cheng, an executive at a multinational company, is typical of the burgeoning yoga practitioners; 'Yoga changed my life' she said, 'I cannot live without it. I used to live a very hectic and stressful life, working 14 or 15 hours a day. I could tell that I was not healthy. I could not sleep at night, had a bad temper and I always found myself quarrelling with my colleagues. When I woke up in the morning I felt my heart was jumping out of my chest. I knew something must be done to change it'. And that 'something', as for increasing numbers of Chinese, was yoga.

'When the life pace of people gets faster and faster, yoga provides them with a healthy body and mind' Mimi concluded. ■

Source: Reuters

LOCAL GOVERNMENT PROMOTES TAI CHI IN HOBART

Upon his return from a trip to China, Australian Traditional-Medicine Society President, Bill Pearson set about replicating the Chinese practice of Tai Chi in public places.

'Wherever you are in China, you will see them in the parks and public places: thousands of citizens doing their daily Tai Chi class' Pearson said, 'I tried it in my local park and nearly caused accidents because drivers on the way home turned their concentration away from the roads to see who the man dancing in the park was. It wasn't quite the same'.

'When I led the first ATMS delegation of practitioners to China earlier this year I used to join the masses every morning at 6:30am. Indeed I was given a Tai Chi Master every morning to watch my progress and teach me more'.

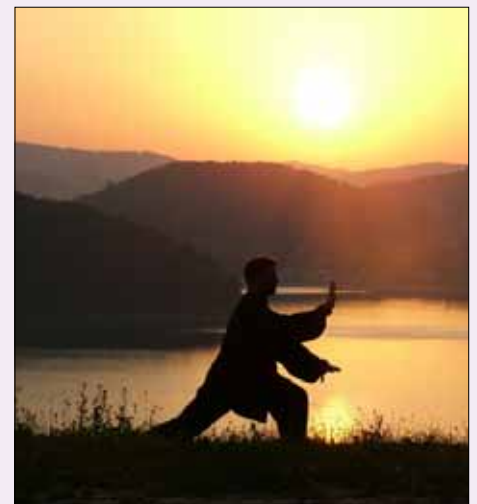
Back in Hobart, Pearson initiated talks with the mayor of Glenorchy who agreed it would be wonderful to practice Tai Chi in

the rose gardens in front of the Glenorchy Council Chambers. This led to the first Government approved Tai Chi class starting in early October.

'We expected very few on that first day. You can imagine our delight when 24 keen participants turned up. I was even more impressed when two of them were Chinese and they had driven from quite a few suburbs away'.

'At a public forum a couple of weeks before I had been asked, during a talk on Tai Chi and its popularity in China, whether the Chinese population lived longer. I replied that they probably didn't, but it was the quality of life that concerned me. Every morning people were exercising, talking, communicating, laughing and sharing. It had to be better than watching television'.

Within days of the class starting Pearson had been asked whether he could extend the class or introduce it in other suburbs. 'With the benefits of Tai Chi soundly being known,



it would please me greatly if this wide brown country, this country crying that it has an obesity problem, this country where too few exercise, started each day performing a gentle yet highly functional set of exercises that work not only on the body but the spirit as well'. ■

Source: Australian Traditional-Medicine Society

AUSTRALIAN YOGA WEEK A GREAT SUCCESS

The first ever Australian Yoga Week, which ran from 8 to 14 October, was a great success in terms of both participation and charity fundraising. The initiative built on last year's Yoga Expo and incorporated a number of activities throughout the week, culminating in the 2007 Yoga Expo on Sunday 14 October.

As part of Yoga Week, the Yoga Aid Challenge took place in studios and at locations across Australia with the main event occurring at Sydney's Botanical Gardens from sunrise until 9am on 10 October. Over 300 yoga practitioners took part in a challenge which saw them performing 108 sun salutations to raise money for two Australian children's charities, Barnardos and Save the Children. The

fundraising target of \$100,000 for Australia's children in need was hit, and then surpassed, as over \$133,000 was raised.

For more information on the event or to register your interest in being involved in future events, visit www.yogaaid.com and www.yogaexpo.com.au for more information.

Source: Pulse Communications

GROUP EXERCISE & MIND BODY NEWS



KINNIE HO'S TOP TIPS!



Hello to all Group Ex Instructors!

The key to successful group fitness instruction is understanding the fact that no two classes can be identical, because no two groups of class participants will be exactly the same. As instructors, we need to become versatile in assessing each group or individual and making adjustments accordingly. When we prescribe exercises in a group setting, common sense needs to be coupled with an effective analytical approach. Teaching guidelines and recommendations are implemented as we examine the needs of participants.

Whether you are a novice instructor or seasoned professional, ask yourself if you meet the following competencies:

✓ A SOUND BASE THEORETICAL KNOWLEDGE OF THE CLASS STYLE/FORMAT YOU ARE TEACHING

For example, if you are teaching an indoor cycling class, do you have fundamental knowledge on bike set-up, safety considerations, muscle involvements, riding techniques, etc?

✓ ABILITY TO ASSESS FITNESS AND COORDINATION CAPABILITIES OF YOUR CLASS

Is the class you are teaching catered towards beginners or a multi-level audience? What do you expect from participants attending a beginners/basic level class as opposed to intermediate-advanced level? And vice-versa, what would they expect from YOU?

✓ ABILITY TO ADJUST INTENSITY AND COMPLEXITY OF THE WORKOUT SPONTANEOUSLY

If you teach a multi-level step class with members ranging from beginner to experienced level steppers and your routine becomes too difficult for beginners to

handle as the workout progresses, what would you do to avoid driving participants away from your class?

✓ ABILITY TO PLAN AND TEACH IN A LOGICAL AND PROGRESSIVE MANNER

Learning, memory and coordination patterns are essential factors to keep in mind. What we teach and how we teach is not the same in every case, but there are tools and techniques we can master as professionals to assist us in delivering classes in a safe and effective manner.

✓ ABILITY TO CATER FOR INDIVIDUAL DIFFERENCES WITHIN THE GROUP WHILE MAINTAINING RAPPORT

This is a fine balancing act! Understanding what your audience needs and wants from the workout can help you stay focused on the delivery. Do your teaching styles complement those needs and wants?

Being able to place a tick against each of these competencies is indicative of a truly versatile instructor!

Until next E-News, stay healthy and happy to all ya Groovy Group Ex instructors! ■

Kinnie Ho

NUTRITION NEWS

STRENGTHEN HIPS WITH A NICE CUPPA

Australian research has found that drinking tea may help older females to strengthen their hips.

Lead study researcher Amanda Devine, a senior lecturer in nutrition at Edith Cowan University, WA, said 'This study suggests that drinking tea in moderation can actually benefit your bones. Those who drank tea in the study had a higher bone density over the four years that they were studied. These women lost less bone than those who did not drink tea. More than three-quarters of the women drank tea daily, and they consumed on average about three cups per day'.

The possible beneficial effects were attributed to certain components of tea, such as antioxidant flavonoids, which Devine explained 'have been shown to have a stimulatory effect on new cells that build bone in cell line studies. Also, the

weak oestrogenic effect of phytoestrogens found in tea may be beneficial especially to older women whose level of endogenous oestrogen is low. Also, the addition of milk to tea will add calcium to the diet, which is also needed for healthy bones'.

The five-year study involved 1,500 elderly (70 to 85 years old) women who took part in a trial of the effect of calcium supplementation on osteoporotic hip fracture. At the start of the study, the tea consumption habits of 275 participants were recorded, and at the end of the trial all 1,500 participants completed a beverage consumption questionnaire.

The density of the bone mineral at the hip was measured at the beginning and end of the study. At the close of the five year trial those categorised as tea drinkers displayed a bone density that was 2.8 per cent higher than that of their non-tea drinking counterparts. Naturally, for women of their



age, both groups lost bone density over the five year period, but for tea drinkers this loss was just 1.6 per cent of their total hip bone mineral density, as opposed to four per cent for the non-tea drinkers. ■

Source: American Journal of Clinical Nutrition

NUTRITION NEWS

FAT COMPOSITION ALTERS DIABETES RISK

New research from Japan appears to indicate that not all fats are necessarily bad for the liver.

The Japanese researchers changed the fat composition in the livers of mutant mice and proceeded to feed them the same highly fatty diet as they did a group of regular mice.

Both groups of mice became obese, with the regular mice developing resistance to insulin and becoming prone to diabetes, while the mutant mice remained free from these conditions.

Associate Professor Hitoshi Shimano from the University of Tsukuba, said 'Obesity is a matter of quantity of fats in the body. But it is

our new message that the quality of fats could be a new determinant factor for diabetes'.

A high intake of fat can lead to obesity and excess fat being stored in the liver – a situation which has long been linked to increased insulin resistance and risk of diabetes.

'The absolute levels of fat in the liver do not therefore seem to be detrimental to maintaining normal glucose levels. Instead, the types of fat that are present seem to be a more important factor, with shorter fat molecules being healthier than longer ones' the researchers said.

The scientists changed the fat composition by creating mice without the Elovl6 enzyme, which increases the length of

the carbon chains of fatty acids.

'Unlike normal mice that became insulin resistant and prone to diabetes after they became obese, the KO mice were free from insulin resistance and diabetes. In other words, we made mice that did not become diabetic even after they became obese'.

If drugs could be developed which inhibited this same enzyme in people, it could reduce the risk of diabetes for obese individuals who find it hard to lose weight.

Shimano concluded; 'If what we found in these mice is applicable to humans, a drug that inhibits this enzyme could be a miracle anti-diabetic drug that does not require diet'. ■

Source: ABC Online

CHOCOLATE AS DEPRESSION MEDICINE?

Although it has the obvious negative nutritional qualities of being high in fat and sugar, research has indicated that chocolate does have the positive quality of being an antidepressant capable of relieving anxiety and irritability.

Australia's Black Dog Institute, the educational, research and clinical facility that offers specialist expertise in mood disorders, studied 3,000 people and found that 45 per cent of individuals with depression craved chocolate. And according to study co-author, Joanne Crawford, 'Of those 45 per cent, 60

per cent found that the chocolate improved their mood when they were depressed'.

People who were prone to worrying and anxiety were found to be the most likely to benefit from the comfort of chocolate. The researchers attribute the mood enhancing properties to the endorphins and opioids contained in chocolate, which encourage people to feel relaxed.

Professor Gordon Parker of the Black Dog Institute said, 'The opioids are morphine-like and lower pain and that also flows through into mental wellbeing. I think this will be reassuring to many people who will say this



just merely confirms what I have found out over the years'. ■

Source: ABC Online

DO YOU WANT HEART DISEASE WITH THAT?

A new study published in the *Journal of Diabetes Care* suggests that hamburgers, fries and other foods fried at high temperatures can negatively impact blood vessels, leading to heart disease.

Fatty foods cooked at high temperatures are high in compounds called advanced glycation end products (AGEs), which previous research has found may cause a short-lived but marked dysfunction in blood vessel dilation which can in turn lead to heart disease.

Lead researcher Dr Jaime Uribarri, from the Mount Sinai School of Medicine, said, 'Although the effect was temporary, it suggests that AGEs could, over time, pose a significant risk to the vascular integrity of both diabetic and healthy persons'.



When protein and fat-rich foods are cooked using high and dry heat methods including frying, grilling, roasting or broiling, high levels of AGEs are formed. Steamed and stewed foods, on the other hand, usually have lower AGE concentrations.

The study found that consumption of an AGE-rich drink resulted in significant endothelial dysfunction, an early indicator of atherosclerosis (hardening of the arteries), which leads to heart disease. ■

Source: Healthday News

NUTRITION NEWS



SUSIE'S NUTRITION BITES

SUGAR: HOW MUCH IS TOO MUCH?

This is one food question which is open to much debate among health professionals. I must admit it is rarely the specific dietary issue I focus on with my clients, as I find that the balance of carbs and protein within meals, and the glycaemic load of the meal in general is much more important to consider when working in fat loss. In saying this, meal plans I develop rarely contain much simple sugar, as simple sugars are mostly found in highly processed foods, foods that nutritionists tend not to recommend in general. If your client's do find themselves relying on simple sugars throughout the day for energy, they should try eliminating them for a week or two to see what a difference it makes to their skin, energy and cravings. Here are the common simple sugars found in foods that contain few other nutrients and can hence be termed 'empty calories', and sugars that slip into many meals:

Teaspoon sugar in tea/coffee = 5g total carbs = 70kJ

250 mls 100% OJ = 23g carbs = 430kJ

250mls apple juice = 30g carbs = 500kJ

5 lollies (yes 5!) = 15g carbs = 300kJ

Teaspoon honey = 10g carbs = 160kJ

Teaspoon jam = 8g carbs = 140kJ

1 fruit twist bar = 30g carbs = 600kJ ■

Susie Burrell

Susie is a sports and paediatric dietitian who specialises in fat loss, childhood obesity and sports nutrition. She is the obesity dietitian at The Children's Hospital at Westmead, and is also the consultant sports dietitian to a number of elite sporting teams including the St George Illawarra Dragons, Parramatta Eels, Illawarra Hawks Basketball. Sydney University Sport and Randwick Rugby Club. For more information and to subscribe to Susie's weekly newsletter, visit www.susieburrell.com.au



CLUB CORNER

HOSPITAL GROUP INTEREST IN GYM CHAIN

One of the largest private healthcare groups in the UK is understood to be considering making a bid for the Cannons chain of gyms which has been on the market since 2006.

The Nuffield Hospitals group, a not-for-profit organisation and a registered charity, has reportedly been in talks with current owners RBS (Royal Bank of Scotland), which bought the gym chain in a management buyout in 2001 for £360 million (AUS\$813 million).

Increasing competition in the market over the past few years, however, means that the business is would be unlikely to sell for as high a figure today. Profit margins in the middle-market gym sector have decreased as competition has resulted in price-cutting.

Nuffield has ventured into the fitness market before, buying Sona, a company which manages in-house corporate gyms, in 2005. Cannons' rival LA Fitness is also rumoured to be interested in the club, potentially creating a chain with nearly half

a million members. Fitness First and Virgin Active are also reportedly to be interested in the sale. The activity follows a trend in the industry for consolidation, which has recently witnessed the London & Regional company purchase David Lloyd Leisure and Next Generation fitness clubs. ■

Source: The Press Association

QUIT PUFFING CIGGIES, START PANTING ON THE TREADMILL

Although there are probably not many smokers among Network's eNews readership, most of us will be aware that states throughout Australia have been enforcing anti-smoking legislation in recent times, culminating in the smoking ban which come into force in NSW and VIC pubs and clubs on 1 July.

The fitness industry should welcome this development for the simple reason that non-smokers no longer have to inhale secondary

smoke in public venues. But initiatives by some fitness facilities in the UK, where a nationwide ban was also implemented on 1 July, suggest another reason for the industry to be happy about the development.

Although the theory that smoking can be an appetite suppressant is often disputed, many smokers do subscribe to this view, and one report estimated that up to 80 per cent of quitters will gain weight. In the UK the legislation has been an incentive for many smokers who can no longer smoke socially to quit altogether, and some are turning to



CLUB CORNER

gyms to prevent them gaining the kilos they fear they may gain by quitting. Knowing a marketing opportunity when saw it, many fitness facilities initiated membership drives to attract the newly smoke-free hordes.

The LA Fitness chain launched a 'Fag-Packet Amnesty' whereby an empty cigarette pack and a voucher printed from the gym's web site could be exchanged for a free weekend's access to their nearest club. National group fitness manager for LA Fitness, Ros Sanderson, said, 'Many people can seek comfort or reward in food, using it as a replacement for a cigarette when they are stressed, tired or bored. Nicotine also acts as an appetite suppressant and

speeds up metabolism, so putting on weight after giving up smoking is a common side effect, especially for women, who put on an average 2.4kg. Research has shown that smokers trying to quit for good who adopt a regular exercise routine have an 80 per cent success rate'.

The Virgin Active chain, soon to be making its first foray into Australia, launched a national campaign to coincide with the smoking ban, waiving the joining fee for the first week of the ban. Independent facilities also capitalised on the opportunity, offering special deals and free support for quitters, including printed nutrition and exercise recommendations. Andree Deane from

the Fitness Industry Association said, 'The smoking ban has been a catalyst for many to stop smoking. Therefore the increase in people looking for a remedy to their addiction creates a great opportunity for our industry to promote the benefits of exercise and help people kick the habit for good'. With the smoking ban situation in the UK mirroring that in Australia, the same opportunities exist for the Aussie fitness industry. ■

Source: Workout

ANNOUNCEMENTS

LEG IT FOR LEUKAEMIA!

Fitness professionals and their clients in Victoria can celebrate their own lives or the strength and courage of Australians with blood cancer by joining the Leukaemia Foundation for a gentle celebratory 4.7km walk, jog or run around Albert Park Lake on Sunday 18 November, from 10:45am to 1pm.

Whether you 'Leg it' in celebration of your own health or for loved ones, survivors, carers or even medical staff – it's a chance to acknowledge all the important people in the cancer journey. By joining the 'Leg it' event you will be showing your support for

patients who have fought or are fighting leukaemia, lymphoma, myeloma or other blood cancers.

Celebrity participants at the event will include ESPN Sports Presenter, Tiffany Cherry; Coxy's Big Break presenter, Kelly Landry; Channel Nine's Kids WB hosts, Shura Taft and Georgia Sinclair, and TV personality Pete Lazar.

The day is designed to be fun for all the family and will include a warm up laughter session, celebrity autographs, special appearance by the Leukaemia Foundation's mascot, 'Lucky Bear', face painting, a sausage

sizzle, crowd giveaways and a free show bag.

Funds raised will assist the Leukaemia Foundation to fund vital research and provide free services to patients and their families. Entry costs \$15 or \$50 for a team of four people. Extra funds can be raised through sponsorship.

For more information or to download an entry form, visit www.leukaemia.org.au/vic, call the Leukaemia Foundation on Freecall 1800 620 420 or e-mail legit@leukaemia.org.au ■

Source: The Leukaemia Foundation

ADVENTURE RACING CHAMPIONSHIPS HIT THE SOUTH COAST

Adventure Racing is one of Australia's fastest growing and most exciting sports, and one of Australia's premier adventure race events climaxed at the Teva Adventure Series Championships, on 28 October in the Shoalhaven area.

The Teva Event is one of Australia's only National Adventure Race Series with events in Sydney, Melbourne, Brisbane,

Perth and Adelaide, and culminates in the championship event. Teams of three take on a day of adventure which includes mountain biking, kayaking and trekking and in a unique twist teams are faced with a series of surprise team adventure challenges which test their ability to work together, think outside the box, and have loads of fun along the way. All kayak equipment is supplied –all you need is a mountain bike and some great team mates.

The course is only revealed to participants one hour before the event and participants

are told to assume nothing and expect anything. The event is not purely about physical fitness; strategy, teamwork and thinking on your feet play a big part as well. Designed for competitive and novice adventure racers alike, the Teva Adventure Series is a brilliant way for active people to have a great day in the outdoors with some mates. ■

To find out more about participating in future events, visit www.tevaadventureseries.com or contact the team at info@in2adventure.com.au



BOOK REVIEW

Book title: Strength Training

Edited by: Lee E. Brown

Reviewed by: Peter Lawler

RRP: \$38.95. Network members: \$37.40
(if purchased online at http://www.fitnessnetworkcentre.com/products/showproduct.cfm?item_id=9780736060592&isbn=9780736060592&addtocart=9780736060592&quantity=1&x=51&y=17)

I've asked it before and no doubt I'll ask it again... will there ever be an end to new books about resistance training? Clearly the answer is NO! Is there anything left to be said, or should one remain speechless – a suitable response to rhetorical questions?

The Sydney Morning Herald recently listed in the Best Seller List, the French classic *Strength Training Anatomy* by Delavier. Clearly the appetite for the topic is as voracious as ever. Which leads me to the latest tome.

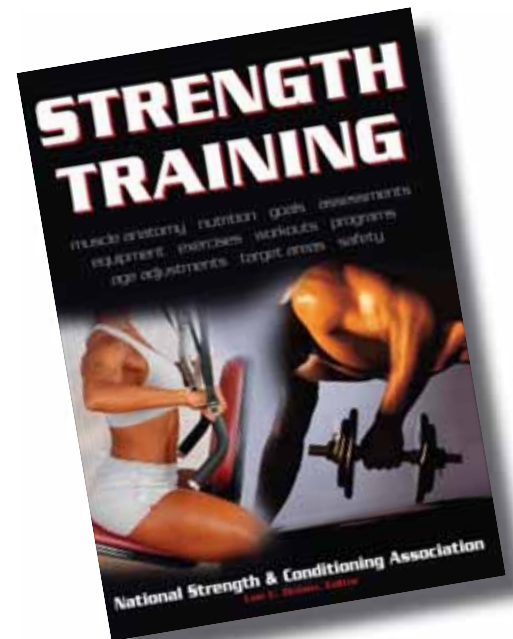
The market for resistance training texts is stratified. The bulk of publications focus on the world of the bodybuilder, while others are written about the latest training system guaranteed to double your strength before Christmas last year! But some of the new books are gems, and this is one of them.

The National Strength and Conditioning Association (NSCA) has commissioned this book. The association is internationally respected, possibly even revered. It's the Western voice of scientific research and the publisher of the great quarterly *Strength and Conditioning Journal*. 'nuff said! Fourteen authors, many of them professors, have contributed to the seventeen chapters. *Strength Training* is divided into four sections, namely; The Origins of Strength, Resistance Training Guidelines, Exercise Technique and Sample Programs.

'Origins' includes four chapters devoted to the science of muscle, how it contracts, how it grows in strength and girth, the art

of recruitment, muscle anatomy and best of all, the principles of training the 600+ muscles we all carry around every day. The most welcomed chapter in this section is Nutrition for Muscle Development, a sober, scientific chapter, free of the trash talk about supplements. It takes 3500 calories to build 0.5kg of muscle. 'The goals of proper nutritional intake are to maximise protein synthesis, minimise protein degradation and restore muscle fuel stores. This necessitates a body environment that promotes the development of tissues, muscle and bone. Enzymes and amino acids must be available' (page 73). Muscle metabolism, the role of hormones, macronutrients, how the body absorbs protein and glycogen, the dietary source of essential vitamins and minerals are lucidly discussed. The only supplements discussed are those with distinct scientific evidence to prove they are effective. There are three: Creatine, branch chained amino acids and L- Carnitine, with the latter delaying fatigue by reducing muscle lactate accumulated from intensive exercise.

Section II also comprises four chapters. The first offers strength tests to assess weaknesses and training gains. The tests are not flash, they're solid and reliable, and include 1RM Bench, vertical jumps and the Margaria-Kalamen stair sprint test. Chapter 6 discusses the types of strength and power exercises available, and it is pleasing to see isometrics back in favour, with cautionary advice noted. From there the chapter sweeps through isokinetic, isotonic, plyometric, med balls, and resistance bands. Essentially, the discussion offers the strengths and weaknesses of the various types of training systems. From here, the devoted reader sweeps through Chapter 7, which deals with the specific, manipulative variables that constitute a training program. The goal of the program determines the type of work to be done, be it hypertrophy, maximal strength, power or muscular endurance. It advises about routines, circuits, the push-pull nexus, alternating light and heavy, building pyramids, super setting – it's all here!



The third section is entitled Exercise Technique, and fills over 100 pages with glorious colour images illustrating exercises for the portfolios of the body. Each exercise is described as to starting position and execution. Then, there it is; Chapter 12, EXPLOSIVE MOVEMENTS. My heart leapt and pounded. Enclosed within; the clean, high pull, push press, push jerk. It was too much to expect that NSCA would include the mighty snatch and the Olympic Clean and Jerk, but progress abounds, which is very encouraging.

Perhaps the most helpful chapters for developing strength training coaches are the five chapters of Part IV, Sample Programs. Here you will find Beginner, Intermediate, Advanced, Youth and Senior programs written by very experienced experts all too aware of the specific demands of the targeted groups.

This book is outstanding. It is a one-stop text with reliable, factual, contemporary information, designed to assist the busy coach's quest for knowledge.

RECOMMENDED WITHOUT RESERVATION. ■

