Cardiovascular Wellness Program Newsletter

Issue #2

August 2020

Comments from Linda

Fall Semester

The fall semester at CSUS starts the last week of August. This entire semester will continue in the virtual format that has developed over the summer, with high hopes of returning to live sessions in January. Despite no actual group meetings, there will still be student interactions going on and you are all invited to be involved with these, on whatever scale you can manage.

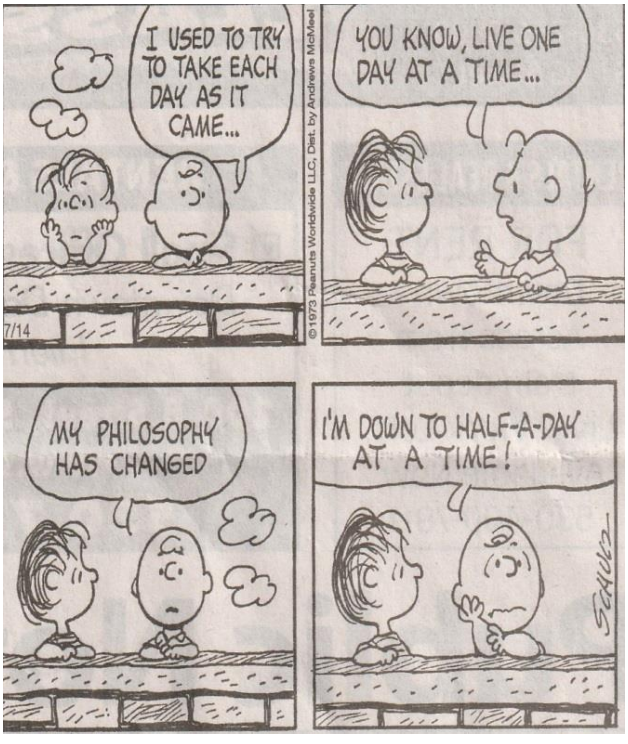
Things you will be hearing about: PT Geriatrics class, gerontology students, nutrition students, psychology students, hopefully kinesiology students, and likely continued interactions with nursing students. There will be research projects going on, one focusing on sleep habits and a 2nd focusing on COVID coping and social interactions. I will be sending out an email requesting sign-ups for these various things, so please be on the look-out for that.

Another project you can get involved with: Zoom counseling. We have an Eagle candidate doing a Scout project helping guys like you with your technology. If you'd like to sign on to some of our sessions but are stumbling too much, please sign up to chat with one of these kids.

Email QuestionI have been sending fairly regular email notices; I have almost 200 names on my list, including program participants, staff members, faculty, and students. Most of you seem on board with this method of communication. I don't hear back from many of you but I am hoping if you needed more information, you would ask. If at any time you wish to be dropped from my list, of course let me know. csuscvwellness@gmail.com.

If you want to get in touch but don't use email, leave a message on the CSUS phone and I will eventually get it –916-278-4402.

Hope to see you soon and thinking of you always.



Included in the 2nd Issue:

From Radhika Nandur Bukkapatnam, MD,
Medical Director, CWP

As we go through the fourth month of COVID quarantine, I have learned about the grace and tenacity of the human spirit against a microscopic threat. It is amazing to see a virus cause such havoc, crossing continents and claiming lives, and turning society upside down, leaving it unrecognizable for the foreseeable future.

In these difficult times, I salute all the first responders, valiant soldiers, people in law enforcement, activists, health care workers, trying to save lives, screaming at the top of their voices to raise awareness and prevent the spread of disease. I salute the essential workers in retail, trying to deliver all the services to keep the wheels running. I recognize all the elderly stuck in solitary confinement in Assisted Living and Nursing Home communities, unable to see the few glimpses of the family that rarely visit them.

I recognize the poor families, torn from each other, who cannot travel, or even see or hug their kids, grandkids. All the graduations, weddings, celebrations or funerals that were cancelled or postponed. While this will pass eventually we do have to acknowledge it's difficult. Through all this, I recognize all the CSUS family, sticking together, encouraging each other, reaching out, through all the physical distancing, bolstering each other through all the zoom meetings, phone calls, sharing recipes, experiences. With all the tenacity, and grace with which all of you are facing the pandemic, we shall all together overcome this situation. Thank you for being there and Thanks to Linda for bringing everyone together.

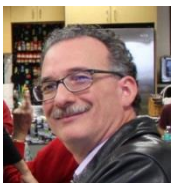
Our summer was so much more enriched because of the involvement of 3 gorgeous, vibrant interns—Ananya, Shreya and Soumya. They taught us two Indian dances –Om Shanti and Ghungroo—and also did delightful, creative, insightful presentations. Shreya made quinoa salad, Soumya introduced us to rajma, and Ananya & Soumya educated us about nutrient breakdowns and fall prevention. We are optimistic they can continue the Indian dancing on some level during the school year and of course they will be back next summer. Their presentations and dances are posted on our website

From Dianne Hyson PhD,
Dean, College of Social Sciences and Interdisciplinary Studies

As we enter the 6th month of operating the campus remotely, a grim reality has set in. There have been many difficult decisions, a lot of planning and pivoting and plenty of challenges. And yet, I am also reminded of the admirable resilience and adaptability of our University community, including the Cardiovascular Wellness Program! Knowing that programming and connecting continues, even if it is via Zoom, is uplifting and important. Sacramento State will welcome several thousand students this semester and most of them will not set foot on the campus until several months from now. But we carry on, providing their education and supporting them as best we can including loan programs for computer equipment, hot spots, virtual advising, distance lectures, examinations, seminars, practicums and the like. I hope students will continue to join you all!. I look forward to the day when we can all be together again in the same space. We will come back better - with new ideas, tools, and approaches. In the meantime, take care…and Zoom on!

PreventionForward Corner
by Eliseo Vazquez and Dr. Javier E. López; edited by Elaje López

Javier López, MD
Medical Direcotr, UC Davis
Cardiac Rehab Program



What exactly is Diabetes Mellitus?

Everyone has glucose (sugar) in their blood. It is the fuel for the body's cells. Glucose comes from the food you eat as well as what your body produces in the liver. A hormone called insulin produced in the pancreas (an organ in your belly) moves glucose from the blood stream to the cells to be used for energy. When the body does not produce enough insulin or does not use it correctly, the glucose cannot travel from the blood stream into the body cells, so it remains in the blood. Over time, high blood glucose (hyperglycemia) can lead to damage in your organs like eyes, brain, heart, nerves. Serious health problems such as heart attacks, strokes, and blindness can occur.

Diabetes is actually not a single disease but rather a group of disorders rooted in metabolism, where the most commonly measured feature is hyperglycemia. Remember how the "normal" blood pressure range we all strive for is <120/80 mmHg. Just like blood pressure, your body has a "normal" range for its daily blood glucose level. This range is typically from 70 - 100 mg/dl. Like blood pressure, your body has the ability to raise and lower these numbers during certain times of the day.

The glucose level is affected by many factors. The pancreas produces insulin and glucagon in efforts to keep your glucose in a healthy range. Genetics, food intake and physical activity contribute to this level. When you eat a large meal with carbohydrates (sugars in the food), your blood glucose goes up due to all the sugars in the meal being released into your blood. The movement of glucose from the blood to the cells in the body is not automatic and is facilitated by the hormones mentioned. These hormones respond to glucose in the blood and enable the body's cells to feast on the freshly available sugar in the blood. This is the process in normal circumstances.

However, with diabetes, your body's cells can no longer respond to your levels of insulin (i.e. insulin resistance) or your pancreas cannot make enough insulin (insulin insufficiency).

Insulin resistance is the major reason for hyperglycemia in type2 diabetes. The reasons why insulin becomes resistant or insufficient in your body are many, sometimes due to genetics or autoimmune conditions. But other very common reasons are lifestyle and diet choices.

How does high blood sugar lead to heart attacks, strokes, and blindness?

When a person with diabetes eats processed sugars, blood glucose overwhelms the body and there is an inadequate insulin response to tell the glucose how to enter the body's cells. The glucose then stays in the blood and this is where problems begin. Having these high levels of glucose circulating in the body causes your arteries and smaller blood vessels to inflame and accelerate plaque buildup. When this plaque builds up in those larger arteries due to high levels of sugar in combination with fat in the blood, your risk of heart attack and/or stroke increases. When the plaques start to form in

the smaller blood vessels (microvasculature) like the ones in your eyes, it can lead to problems like blindness. The high glucose in the blood can also affect other parts of your body like nerves, kidneys, and brain, leading to the many other complications from diabetes.

What can I do to prevent heart attacks, strokes, and blindness?

You may now be wondering: what can I do to keep this from happening to me? What are the best ways for me to avoid insulin resistance and stay healthy? Just a few are listed here. Also, make sure that you discuss with your physician how and when you should be screened for hyperglycemia and/or diabetes.

- Quality diet (whole-food plant-based ideal)
- Exercise, exercise, exercise!
- Routine sleep schedules
- Manage stress

Adapted from Health Maintenance Education web site at UC Davis (https://health.ucdavis.edu/livinghealthy/topic/diabetes/index.html

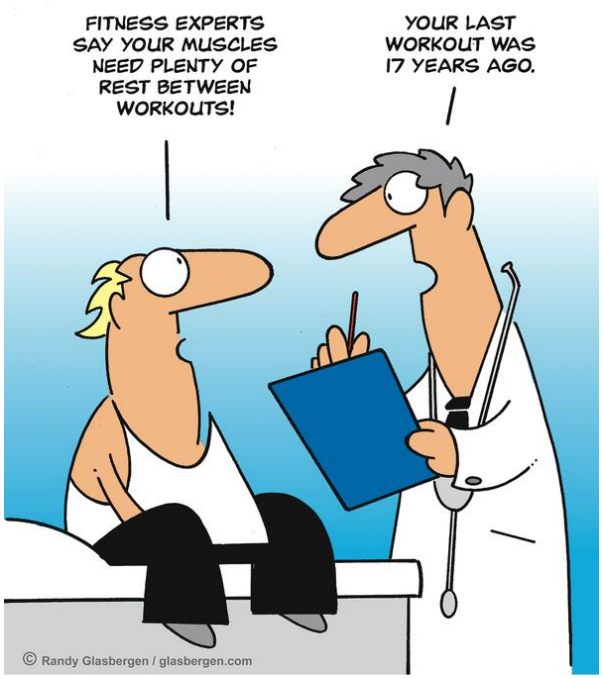
Diabetes and Exercise at Home

From Debbie Lucus, RD

Hopefully you have continued to stay active during the shutdown, in spite of not being able to go to the gym and, for the last few weeks, extreme heat! Whatever you have been doing for your activity, it is important to stay on top of your blood sugar control. A few steps to keep you safe:

1. If you have enough test strips, check your glucose before you start to exercise.
2. If it is 100-300 mg/dl, it is okay to exercise (but why did it get as high as 300? That is a topic for another newsletter!)
3. If below 100, have a snack with about 15-30 grams of carbohydrate (ie. piece of fruit OR ½ sandwich OR hummus and pita chips). If below 70, don't exercise, but treat the low blood sugar with 15 grams of fast acting sugar (½ cup juice OR 3-4 glucose tablets OR 6-7 Lifesavers). And why are you so low?? We'll have to investigate that.
4. If above 300, it may be best to not exercise or exercise with caution. Have a glass of water and treat the high reading if you have medications that can treat a high (ie. a little insulin) and your doctor has instructed you in that.
5. Exercise is an excellent medication for diabetes – it acts like insulin and lowers your glucose. When you are exercising, always carry a treatment for a low blood glucose: glucose tablets are an easy-to-carry item.
6. Stay hydrated, carry water with you or have it close at hand. Drink before, during and after exercise.
7. It can be eye-opening to check your glucose after exercise. You can see the powerful glucose-lowering effect of your exercise. You may notice hypoglycemia. If you notice a trend in your glucose, such as you always run low when you exercise after lunch, your medication needs adjustment. If you take insulin at meals, talk with your doctor or diabetes educator about lowering your lunch insulin on exercise days. Or if you are on an oral medication like Glipizide or Glimeperide, you may be able to skip your morning dose on exercise days. Share your numbers with your doctor and make these adjustments with help.
8. Exercise is beneficial at any time of day, but being active after meals can help to prevent low glucose as you will have the glucose from your meal in your blood stream.

Exercise Reminders *from Linda Paumer*



Regular reminder: Are you getting 30 minutes of cardiovascular activity (walking, biking) most days of the week?? Are you doing some resistance exercise a couple of days a week? Are you doing any stretching? If you aren't exercising with our group, please make sure you are doing things on your own!

Attached to this newsletter is some information on my latest interest: pelvic floor muscles. I think you all know I've always been a big proponent of core integrity, and this is an important part of that fitness issue. Being strong & flexible in all our parts is what it's all about.

Recipe Corner

Strawberry Basil Salad

I wanted to include a recipe consistent with our theme of diabetes. This is a salad Debbie brought one day when she was taking about sugar control. Author: Celeste @TheWholeServing

Serves: 5

Ingredients

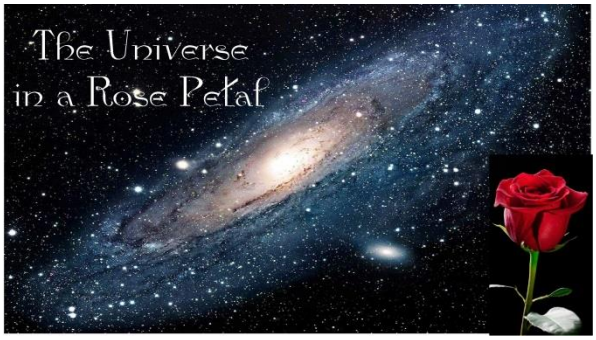
- 1 cup uncooked farro
- 2 cups strawberries, quartered
- ½ cup chopped red onion
- juice of 1 medium lemon, about 3 tablespoons
- 3 tablespoons torn or chopped fresh basil leaves
- ½ cup pine nuts or chopped walnuts
- balsamic glaze

Instructions

1. Prepare the farro using the direct or pre-soak method. I used the pre-soak method.
2. While farro is cooking wash and prepare the other ingredients.
3. When farro is ready, drain and transfer to a large bowl. Add in the strawberries, onions, lemon juice, basil, and nuts, toss together.
4. Taste and season with salt and pepper to taste.
5. Spoon onto serving dish, drizzle with balsamic glaze and serve,

Notes. This salad can be served at room temperature or cold from the fridge. Other salad add-in options: celery, cranberries, apples, cucumbers, grapes, olives, green onions.

Nutrition Information Serving size: 1 Cup Calories: 234 Fat: 10.3 Saturated fat: 0.8 Carbohydrates: 32.5 Sugar: 6.4 Sodium: 4.3 Fiber: 5.8 Protein: 7.6 Cholesterol: 0



Practicing Mindfulness

By Linda M, Larsen, RN-BC, RYT

Sometime last year I signed up for an extended June weekend in LA with my best friend for ***The Mindfulness & Compassion Global Summit 2020***. I instead spent a 3 day weekend at home glued to my computer. I don't think I need to tell you why the Summit went online, but I am *so* grateful that I still had the opportunity to hear presentations by world-class mindfulness teachers. Personal values came up as a mindfulness tool from a number of the speakers, which supports Dr.Yiaslas' values handout.

In the online summit, Jeremy Hunter of the Executive Mind Leadership Institute at Claremont Graduate University explained many mindfulness concepts in a different and powerful way - you can hear a bit of his story by going to the TEDx talk on his webpage: https://www.cgu.edu/people/jeremy-hunter/. Jeremy explained that mindfulness is a learned skill and describes equanimity—evenness of temper, especially in a difficult situation—linked to mindfulness as a pivotal step towards accepting your experiences. Accepting ones inner experience allows acceptance of the flow of life's outer experiences. Awareness in and acceptance of the current moment *as it is*, (including personal pain or illness, a global pandemic, structural racism, etc) leads our fight/flight/freeze stress response to be less activated. We are more able to respond with compassion and in alignment with our values.

A main reason I wanted to attend this summit was to hear Rick Hanson, a Neuropsychologist at the Greater Good Science Center at UCB. I shared his powerful Whole Body Breathing and 3 breaths practices in a CWP Mindful Zoom practice session in June. Dr. Hanson explained that "when we are not feeling calm or contented during turbulent times, when we feel rattled, pressured -- we're kind of spinning out into our internal mini movies. Neuropsychologically, if we tune into the internal sensations of the body, we suffer less and get less caught up in internal time travel future/past thinking." As a researcher he found that tuning into the body acts as a circuit breaker and decreases activity in our brain's default mode network, which leads to fewer wandering, distracted, and anxious thoughts. Sensing the whole body brings us into the present with an increased sense of acceptance, allowing us to see things as they are in the present moment. His findings highlight the main purpose of my mindfulness practice sessions: to create a stronger mind-body connection which improves our mental and emotional health. He also pointed out that focusing on body sensations quiets the stream of loops of thought. For a quick practice – here is his 3 breaths practice: 1) first breath, breathe in and out, noticing the breath 2) second breathe, breathe in and out and pay attention to the feeling of love you have for someone else 3) third breath, breathe in and out and pay attention to feeling of being loved by someone else.

Many speakers mentioned that present moment awareness can help with our recent phenomenon of confusion to time – . "What day is it?" These feelings of confusion to time are a phenomenon called "temporal disintegration," a common response when the future is in question. Our sense of time is also impacted by continuity and social cues being gone, as well as disrupted schedules and new tasks. Meditation, present moment awareness and helping others help to decrease the distress this time distortion may bring, as well as responding clearly with calmness and self-control from our values.

One more speaker to note is Chris Ruane MP, a Member of the United Kingdom Parliament: go to https://www.themindfulnessinitiative.org/story-so-far to get a detailed picture of his work in Parliament and https://www.youtube.com/watch?v=UQz93AR0HtI for his presentation at Wisdom 2.0 Europe 2014. He teaches MP's to listen more deeply and be less reactive, and advocates for mindful politics in parliament – 'Stop, think, breathe… vote.'

Overall, the summit was not as fun as it would have been had I been able to attend in person with my friend, but there were so many helpful takeaways it was a great weekend for learning still!

"We are capable of directly sensing things like the sounds of birds, the scent of beautiful flowers and the sight of a loved one's smile. And we know with the heart as well as the head. Thinking is not all there is to conscious experience. The mind is bigger and more encompassing than thought alone." — Mark Williams, *Mindfulness: A practical guide to finding peace in a frantic world*

Zoom Sessions Recap *(from Linda)*

I am doing my best to keep our educational program going through Zoom meetings and am forever grateful to our team members who are dedicated to helping here. I am also grateful to those of you who regularly attend these sessions; of course you all make it worth continuing. We have had some great sessions the past couple of months, including:

Fall Prevention, by the whole Bukkapatnam family

Calcium & Bone Health, with Cari Shulkin. She's also been playing brain games with us and kept our community going. She'll be talking about breathing soon—we all do that, right?

Nutrition insights from Debbie Lucus, most recently summer grilling, batch cooking and calcium-rich pesto.

Continued health discussions following our road map to health with Dr. Lopez and Dr. Bukkapatnam.

Continued group discussions on mastering stress with our psychologist, Dr. Yiaslas.

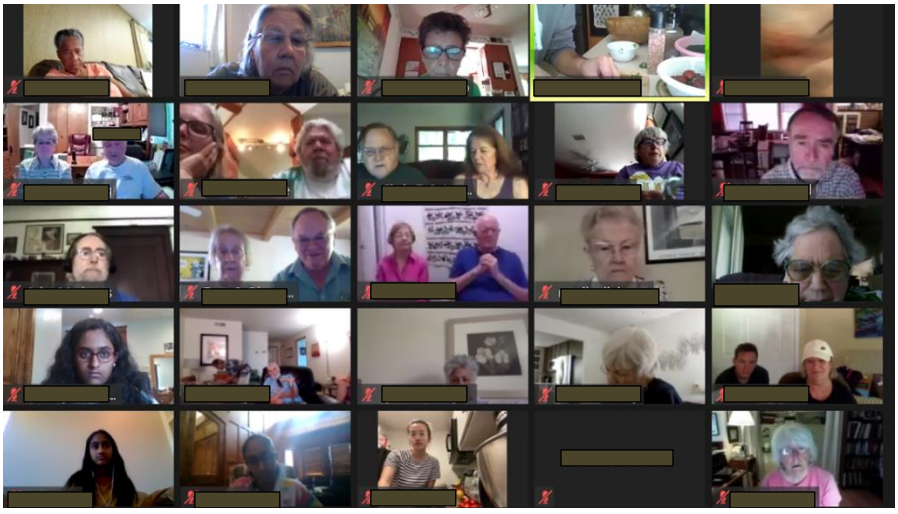
Continued mindfulness practice, also called cardiac yoga, with Linda Larsen

Very regular tai chi sessions, led by David Sady. It is really good stuff.

And I of course am having very regular guided exercise sessions, featuring a variety of activities that include cardiovascular movement, stretching, resistance, and balance training.

And don't forget our Zoom Socials. These will continue once/month. They are very fun—not nearly as good as a potluck or food demo where we get to actually eat the food being prepared, but certainly better than never seeing each other. Try to check in to these if you can. I am grateful for Tim & Allison & Dave who add to the mix for these sessions, and for all of you who do check in.

I have been successful in recording a few of our Zoom sessions, very unprofessionally. Any recordings are posted on the resources page of our website. Most of these sessions do at least have any powerpoint slides that were presented also posted. If you need helping accessing these resources, please let me know. There are some exercise & tai chi sessions you can follow on your own when we are on break.

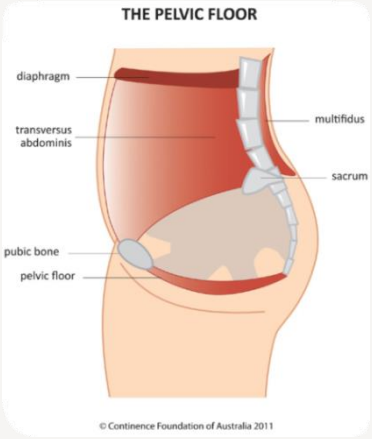


Page 1 of 2 from our June zoom Social—Tim was making salad!

Link to our website (from the homepage click on 'resources':

https://cardiovascularwellnessprogram.org/

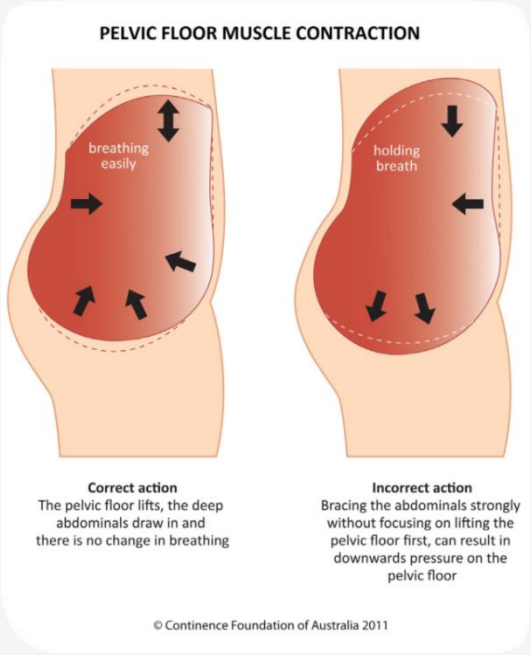
Pelvic Floor Muscles



Pelvic floor muscles form the base of the group of muscles commonly called the core. These muscles work with the deep abdominal and back muscles and the diaphragm (breathing muscle) to support the spine and control the pressure inside the abdomen. The pelvic floor muscles play an important role in supporting the pelvic organs, bladder and bowel control and sexual function, in both men and women.

During exercise, the internal pressure in the abdomen changes. For example, when lifting a weight, the internal pressure increases, then returns to normal when the weight is put down.

Normally the regulation of pressure within the abdomen is automatic. For example, when lifting a weight, the muscles of the core work together: the pelvic floor muscles lift, the abdominal and back muscles draw in to support the spine, and breathing is easy. The pelvic floor muscles should respond appropriately to the increase in abdominal pressure. If any of the muscles of the core, including the pelvic floor, are weakened or damaged, this coordinated automatic action is affected. When this is the case, during exercises that increase the internal abdominal pressure, there is potential to overload the pelvic floor, causing downward pressure.



When this happens repeatedly during each exercise session, over time this may place a downward strain on the pelvic organs and this may result in loss of bladder or bowel control, or pelvic organ prolapse. Pelvic floor symptoms can also be potentially worsened if a problem already exists.

Pelvic floor muscles need to be flexible to work as part of the core, which means that they need to be able to relax as well as lift and hold. It is common for people to brace their core muscles constantly during exercise in the belief they are supporting the spine, but constant bracing can lead to the muscles becoming excessively tight and stiff

Pelvic floor muscle stiffness commonly coexists with muscle weakness and can contribute to problems such as urinary urgency and leakage. Other problems often associated with the pelvic floor muscles being too tight include pelvic pain, pain during intercourse and difficulty emptying the bladder.

How do I know if I have a pelvic floor problem? Common signs and symptoms of a problem with your pelvic floor include:

- accidentally leaking urine when you exercise, laugh, cough or sneeze
- needing to get to the toilet in a hurry or not making it there in time
- the need to frequently go to the toilet
- finding it difficult to empty your bladder or bowel
- accidental loss of faeces or wind
- a prolapse
  - in women, this may be felt as bulging into the vagina, heaviness or discomfort, or a feeling of pulling, dragging or dropping down
  - in men, this may be noticed as a bulging coming out of the rectum, a feeling of needing to use your bowels but not needing to go
- pelvic pain
- pain during sexual intercourse
- poor sensation or loss of bladder control during sexual intercourse.

Are you at risk of pelvic floor problems?

You are at greatest risk of pelvic floor problems if you are in one or more of the following groups:

- pregnant or postnatal women
- women who have ever had a baby
- menopausal and post menopausal women
- women who have had gynaecological surgery (e.g. hysterectomy)
- men who have had surgery for prostate cancer
- elite athletes (e.g. runners, gymnasts).

Your risk is increased if:

- you regularly lift heavy weights (e.g. at the gym or as part of your job)
- you strain often to empty your bowels (constipation)
- you have a chronic cough or sneeze
- you are overweight or have a Body Mass Index greater than 25
- you have had trauma to the pelvis area (e.g. a fall, pelvic radiotherapy)
- you have a history of back pain.

If you are in one of these at-risk groups or if you have symptoms of pelvic floor problems, it is important your exercise program is pelvic floor safe. Protecting your pelvic floor now will save you problems in the future.

Core exercises and the pelvic floor

Your abdominal muscle strength may exceed the ability of your pelvic floor. If you have, or are at risk of, pelvic floor problems, it is important you train for the “weakest link” and put your pelvic floor first. There are a number of ways to modify your core exercises to protect your pelvic floor:

- Cease strong abdominal exercises.
- Reduce the level of your abdominal muscle exercise program.
- Avoid breath holding by exhaling with effort.
- Maintain good posture.
- Lift your pelvic floor first and hold it during the exercise, then relax after.
- Notice how many repetitions you can do before your pelvic floor muscles tire. You may need to add some rests or reduce the number of repetitions until your pelvic floor muscle fitness improves.

Always one for keeping fit, Jill did her regular pelvic floor exercises.

If you are pregnant, early postnatal or have recently had gynaecological or prostate surgery, more gentle abdominal exercises are recommended. Seek advice from a continence health physiotherapist or your exercise professional to check which of the pelvic floor safe exercises are best for you. It is important to build your pelvic floor muscle control before progressing to more challenging abdominal exercises again.

For information on pelvic floor muscle exercises, go to http://www.pelvicfloorfirst.org.au/