

Dangerous downside of sit-ups: embarrassing side effects

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AFTER losing 17kg and running a half marathon in one hour 50 minutes, Sally Thompson appeared to be a postnatal fitness success story.

About a year after the birth of her second child, Thompson had signed up at a gym and engaged a personal fitness trainer to help her lose her post-baby excess weight and regain her former high level of fitness.

Within six months she'd achieved her goal.

"I was so strong, fit and healthy, but then my insides let me down," says Thompson, now 39, who went on to learn she'd been building her body fitness while leaving behind her pelvic floor, the platform of muscles, ligaments, connective tissue and sphincters that combine to support and close the bladder, vagina, uterus and bowel.

Little wonder she ended the half marathon with wee-soaked socks.

"I first started experiencing urinary stress incontinence [leaking urine when under stress such as when coughing, running or sneezing] about three months into my fitness kick. There were some exercises I just couldn't do. But I pushed on thinking I simply had a weak bladder and ended up being unable to walk or run without having to go to the loo all the time."

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Sixteen per cent of the Australian female adult population participate in fitness centre activities, compared with 9.4 per cent of adult males, according to the Australian Bureau of Statistics 2005-06 Multi-Purpose Household Survey. And about one in three Australian women experience urinary stress incontinence, according the Continence Foundation of Australia.

"Every week in my clinical practice I'd see at least one woman with an aggravation of her incontinence or new prolapse as a result of returning to gym at menopause, or soon after childbirth," says Mary O'Dwyer, pelvic floor physiotherapist and author of the recently released book *Hold It Sister: The Confident Girl's Guide to a Leak Free Life*.

O'Dwyer is one of several concerned health and fitness professionals who gathered at a stakeholder forum in Melbourne last December to explore the link between exercise and pelvic floor dysfunction. The forum gave rise to a strategic partnership between the CFA and the fitness industry to help make gyms and fitness centres pelvic-floor safe.

A working group is developing resources to increase fitness instructors' skills so they can empower women to do pelvic floor exercises correctly. Dianne Edmonds, working group member and CFA special project officer, says they're also developing screening questions -- such as do you lose urine when you cough, sneeze or run? -- so instructors can identify at-risk women early and refer them to women's health professionals.

Had Thompson been screened before starting her fitness training it would have been obvious that she was at high risk. "I'd experienced two difficult births [one long forceps delivery and one emergency caesarean] and, after inquiring, I discovered I had a family history of pelvic floor weakness," Thompson says. "I'm an educated health promotion professional, but I simply didn't know about what I needed to know about my pelvic floor."

Hidden from view and far from a comfortable conversation topic, the workings of the pelvic floor frequently remain a mystery not only to men but to women. "It's not just people in the fitness industry but women in general who are often ignorant about this part of their body, including health professionals," says O'Dwyer, who has treated gynaecologists, general practitioners and midwives.

"There's nothing in our culture that brings awareness [of the] pelvis or teaches us about it, unlike in some other cultures where traditional dance cultivates pelvic awareness."

When CFA launched its exercise and pelvic floor project at a fitness industry conference earlier this month, the room was packed, according to Jessica Billimoria, the foundation's communications manager. "I heard many stories after this session, and at our expo stand, from women working in the industry who struggle with continence issues themselves. It affects their ability to work and is a really serious issue for them."

The pelvic floor muscles attach to the pubic bone in front and run underneath the body like a muscular trampoline, inserting into the tailbone and stretching from the sit bones on either side of the body. Heavy lifting, excessive abdominal training and classes such as combat, balance and spinning, can cause serious damage to this structure.

O'Dwyer explains lifting a heavy weight increases pressure inside the abdomen, which in turn pushes down on to the pelvic floor. Sit-ups, curl-ups and double leg lifts, traditionally recommended as abdominal strengthening exercises, also raise internal abdominal pressure.

If the pelvic floor isn't strong and co-ordinated enough to quickly lift and hold to counter this internal pressure during exercise, then pelvic organ prolapse, or misalignment, is promoted.

Leaking when running or jumping in high-impact classes indicates the pelvic floor isn't coping with the effect of the feet hitting the ground, and persisting is likely to weaken the floor even more.

Then there's the problem of compensation, O'Dwyer says: "When the pelvic floor doesn't work effectively, the upper abdominal muscles substitute to brace the trunk, which increases downward pressure on the pelvic floor as well."

That's why Lisa Champion, working party member and president of the Australian Fitness Network, is concerned about indiscriminate use of the instruction "brace your abs" to prepare for an exercise. "It's definitely overused," she says.

Add to this the cultural pressure for women to pull in their tummies, which further increases downward intra-abdominal pressure, O'Dwyer says, and there's nowhere for the pelvic floor to go but down.

While certain exercises can cause or aggravate pelvic floor problems, others can cure them.

Pelvic floor muscle training is effective in treating stress incontinence, with cure rates of up to about 85 per cent, according to Pauline Chiarelli, a physiotherapist and associate professor at the University of Newcastle.

"If your stress incontinence is mild, success rates are likely to be even higher," she says. Chiarelli says tailored pelvic floor exercises including maximal contractions, as strong as possible, work best. They may be effective, but pelvic floor contractions aren't always easy to master and having a weak pelvic floor in the first place makes it even harder.

"Initially, my pelvic floor muscles were so weak that I couldn't isolate or contract them at all," Thompson recalls. "It took me two to three months to build up enough strength to be able to activate the correct muscles. I'd been compensating for my weakness by using my stomach, back and thigh muscles instead. I had to unlearn those strategies so they wouldn't be the first to kick in."

Poor instruction also doesn't help. "There are some very highly regarded Pilates instructors teaching pelvic floor exercises on the in-breath, but you need to do them on the out-breath as when you cough or sneeze," Chiarelli points out.

"It's important to get it right because if you have a minor problem, then turn on the wrong muscles, that can make the problem worse," she warns, advising sufferers to find a women's health physiotherapist or women's health nurse trained in pelvic floor exercises. They can check if you're doing the exercises properly, squeezing up rather than bearing down.

After about seven months of dedicated pelvic floor strengthening exercises three times a day, Thompson can now run 5km and stay dry. "I've changed my gym routine completely: no abs, no wide leg squats or side lunges and low impact classes only. It's about gradually bringing my pelvic floor strength up to my body's fitness level," says Thompson, who's also changing careers to be a pelvic-floor safe personal trainer while acting as the consumer representative on the CFAs working party.

The challenge for women recovering from pelvic floor damage is to take the pressure off themselves and their pelvic floor as they regain strength.

"When you go to a fitness centre and participate in a class it's normal to want to push yourself to keep up. But women need to learn how to self-regulate," O'Dwyer says. "If a woman can't hold her floor muscles on while doing an exercise, that's a clear indication the exercise is beyond her capacity and she needs to back off."

Women with healthy pelvic floors should still train up their pelvic floor muscles, according to Chiarelli, who says people typically loses 30 per cent of muscle strength between ages 27 and 70 because of ageing. "The pelvic floor muscles are like any other muscle in the body. If you don't use it, you'll lose it."

To register interest in pelvic floor fitness resources, contact: Fitness@continence.org.au