

STUDY

Slow and steady doesn't win the weight-loss race

ROXANNE NELSON

In a trial of weight-loss approaches, the rate at which people dropped excess pounds was not linked to their success in keeping the weight off over the following three years.

Researchers say the small study shows current guidelines advising slow and steady weight loss should be revised, and the focus should be instead on improving methods for helping people maintain their weight over the long term.

The long-held belief that losing weight gradually produces better long-term outcomes seems to stem from the perception that obesity is a behavioural problem and that gradual weight loss allows more time for habits to change, the Australian study team writes in *The Lancet Diabetes & Endocrinology*.

"Obesity is not just a lifestyle disease, as it is commonly believed, but is largely genetic," said senior author Dr. Joseph Proietto,

Sir Edward Dunlop Professor of Medicine at the University of Melbourne. Scientific evidence also does not support the superiority of a gradual approach in achieving or maintaining weight loss, he said. Regardless of how pounds are lost, many individuals have difficulty staying at their new weight and often gain it all back.

To test whether the rate of weight loss affects whether people regain weight, Proietto and his colleagues designed a two-part trial. In the first part, 200 obese adults were randomly assigned to either a 12-week rapid weight-loss program on a very-low-calorie liquid meal-replacement diet of 450 to 800 calories a day, or to a 36-week program of gradual weight loss. The gradual diet was based on current Australian healthy-eating dietary recommendations and included one or two liquid meal replacements a day, with a goal of reducing the participants' calorie intake by 400 to 500 a day.

In part two, people who had lost 12.5 per cent or more of their body

weight were able to continue into a weight-maintenance program that would run for about three years. The maintenance program included an individualized eating plan and meetings with a dietician every 12 weeks.

In the first part of the study, the researchers found, participants who lost weight faster were more likely to achieve their target weight loss. Over all, 81 per cent of those in the rapid weight-loss group lost 12.5 per cent or more of their body weight, compared to 50 per cent in the gradual weight-loss group.

And in part two, the speed at which individuals had lost weight did not appear to play a role whether they regained weight or how much. Both groups gained back about 71 per cent of the weight that they had initially lost.

As observed in this study, very low-calorie diets can lead to robust weight loss in a very short time, but this type of diet should only be undertaken with medical supervision, said Dr. Kishore M.

Gadde, from the Pennington Biomedical Research Center in Baton Rouge, La. He was not involved in the study, but wrote an accompanying editorial in the same issue of the journal.

Keeping the weight off is all too frequently the problem, Gadde said. "Once desired weight loss is achieved, individuals need to make intensive efforts to maintain their lost weight."

The study showed that seeing a nutrition counsellor every three months is not adequate support for weight maintenance, Gadde noted.

"Exercise can help prevent weight regain to some extent, but the intensity of exercise needed to prevent regain is difficult to incorporate into our daily lives."

Using diet and exercise, unfortunately only about 15 per cent of people may be able to successfully lose weight and keep it off, he said. "Pharmacotherapy could be a consideration for those regaining weight," he said. "But we do not have solid evidence at this

time that pharmacotherapy confers long-term success."

Proietto and his colleagues had also measured hunger-related hormones and appetite among participants in their study to see how the rate of weight loss might affect changes in feelings of hunger, both long- and short-term.

"The rate of weight loss also did not influence the changes in hunger-controlling hormones that occur with weight loss," said Proietto, who also heads the weight-control clinic at Austin Health in Melbourne.

Proietto feels that while appetite suppression after weight loss should be considered, the problem is that there are not many effective agents and none of them has been tested for long-term safety.

"Our study shows again that drugs are not essential for achieving weight loss, but they are probably important for assisting with weight maintenance," he said.

Reuters

Plan now to avoid age-related injuries

With seniors being more active than ever their bodies often struggle to keep up with the lifestyle they desire

DR. DWIGHT CHAPIN
HEALTH ADVISOR

"It was probably 2 or 3 in the morning. I thought I heard something downstairs. I rushed into the kitchen and inadvertently stepped directly into the dog's water dish, slipped forward and pulled my hamstring. In two weeks, in celebration of my 65th birthday I'm scheduled to run the New York City Marathon. Doc, will I be good to go?"

John is a patient of mine and has been for some time. He's called on me to fix the odd sports injury over the years but, for the most part, he lives his life ahead of the curve. As such, our work together has been mostly preventive in nature. Committed to living an active lifestyle, he bikes, walks and participates in weekly pilates, yoga and spin classes. Six months ago, he started training for his first marathon to mark his 65th birthday. Ironically, it was his dog's water dish that brought him to a standstill, not arthritis or an aging body.

Such optimistic fitness goals were unheard of a generation ago, when few people in their 60s would expect so much from their aging bodies. Gone is the acceptance that a decline in physical health and diminished performance is an inevitable part of aging. John's expectation of his physical capabilities, for a man in his mid-60s, is not uncommon today: 65 is the new 40.

Baby boomers are pushing the orthopedic limits of their bodies. They are training harder, looking for new physical challenges and surrounding themselves with professionals to help them accomplish their goals. Pushing the limits of an aging body comes with some risk. This new reality has given way to a medical trend that orthopedic surgeons, chiropractors and physiotherapists are calling "boomeritis." The term, coined by American orthopedic surgeon Dr. Nicholas DiNubile, refers to injuries sustained among ambitious older adults who participate in competitive sports, adventure travel and other physically demanding activities.

Baby boomers are now somewhere between 50 and 68 years old. By 2031, all baby boomers will have reached 65, and the proportion of seniors in Canada will likely reach 23 per cent, compared with 15 per cent in 2011. As we get older, various soft tissues (bone, tendon, muscle, spinal discs) go through predictable wear and degeneration. Cartilage, the smooth, shiny surface that cush-



Canadian health officials recommend adults 65 and older accumulate at least 150 minutes of moderate to vigorous aerobic activity a week. KEITH MEYERS/NYT

ions our joints, softens and can wear thin with age. Muscle mass peaks at age 25 to 30, and then decreases by about 4 per cent a decade until the age of 50, when it drops by about 10 per cent every 10 years.

Many of these changes occur under the radar, without any symptoms. Add to this old injuries, a sedentary lifestyle, a "no pain, no gain" mindset in preparation for an exciting, upcoming adventure and you have the perfect storm to create an untimely, age-related injury.

The good news is that "boomeritis" is preventable.

I treat high-performance baby boomers who ski, box, golf, curl, wakeboard, run, garden, play soccer, hockey and baseball. Those, like John, who have done so without injury or in spite of arthritic joint pain typically attribute their success to hard work and a dedicated strategic approach to healthy aging – not to superior DNA. The idea that we are handed a genetic destiny at birth, set in stone regardless of lifestyle practices, is old thinking. I must hear a dozen or so patients a day ask me how their pain is related to aging. "Well doc, the knee flared up again this weekend after playing tennis. I

guess I'm just getting older. Maybe I should be giving up the game." Not so fast.

In simplified terms, health is defined by four factors: age, current level of physical fitness, nutritional health and genetics. A well-designed, co-ordinated strategy that addresses each factor reduces the risk of age-related decline and supports the body's ability to adapt and get stronger. Note, two of the factors are under our direct control – nutrition and fitness. If it's tennis that you love, explore how your approach to the sport and your preparation to play it need to change to keep you on the court. Here are the key factors to consider as part of this process:

Listen to your body.

Pain is an excellent motivator, but waiting for it to show up before you seek help can complicate a recovery. Before pain prevents activity, address restricted range of motion, difficulty with balance or regular movement patterns and/or diminishing flexibility. In other words, if you suddenly can't turn your neck all the way, hold a familiar yoga pose or bend the way you used to, reach out to a clini-

cian who will help you monitor your musculoskeletal health.

The body is made for motion.

Improving flexibility and range of motion takes practice and must be worked on every day. Gains here will help avoid soft-tissue microtrauma that is the hallmark of "boomeritis" and enhance balance, preventing falls. Walking, swimming, aqua-fit classes, tai chi, dancing, biking and cross-country skiing are all good options. Start moving but start slowly. To achieve health benefits and improve functional abilities, the Canadian Physical Activity Guidelines recommend adults 65 and older accumulate at least 150 minutes of moderate to vigorous aerobic activity a week, in bouts of 10 minutes or more.

Lean muscle mass works for you.

Strength training rebuilds atrophied muscles and strengthens bone. It is a must. Lean muscle also burns more calories, helping you maintain a healthy weight. A gym membership is not required. A simple set of resistance exercise bands and a home program designed by a qualified health

professional will do the trick. Major muscle groups should be targeted twice a week.

Good exercise doesn't have to be high impact.

Replacing or reducing high-impact activities (e.g., running and jumping) with more joint-friendly sports (e.g., biking and swimming) will help improve your capacity and enjoyment for movement.

In the end, there is no silver bullet. The right strategy and some discipline are the keys to pushing the boundaries of healthy aging and performance. As for John, he will be good to go. His dog, however, will no longer be drinking water from the kitchen.

Health Advisor contributors share their knowledge in fields ranging from fitness to psychology, pediatrics to aging.

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Is it safe to do a 30-day squat challenge?



KATHLEEN TROTTER
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THE QUESTION

I really want to get back into shape and lose some weight. My friends seem to be getting results with a "30-day squat

challenge" that is popular on Facebook. Does it work? Are those challenges safe?

THE ANSWER

As a trainer I feel slightly ridiculous discouraging any form of exercise, but the truth is, I am not a huge fan of any 30-day challenges.

They are basically a recipe for injury. With the squat challenge, you start by doing 50 repetitions. After 30 days, you are expected to complete 250 squats in one workout. Most newbie lifters,

and even some seasoned lifters, can barely do 10 squats with perfect form, let alone 50-plus.

You are better off doing fewer squats, but being sure you do them properly. To lose weight, you want to increase your lean muscle mass so that your metabolism improves. Hundreds of squats (probably done with poor form) are not the best way to get lean. Instead, do three to five sets of squats with a weight you can lift for 12 to 20 reps.

Remember that squats may be a powerful exercise, but they will only produce results when done

as part of a well-balanced overall routine. You need to sit less, be more mindful of your daily health habits, improve your nutrition and move more.

TRAINER'S TIP

It is great that you and your friends are trying to be active – just try not to compare yourselves to one another. No two individuals react to exercise in the same way; everyone's fitness and health journey will be unique.

How your body responds will

be influenced by your age, gender, genetics, fitness history, nutritional habits and current activity level. If your friends reach their goals sooner, don't get discouraged and use their success as an excuse to sabotage your own efforts. Appreciate and love your body and your genetic window. Work to be the best possible version of yourself!

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