Q&A: What can we learn from elite athletes about fitness and longevity?

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Thirty-nine-year-old LeBron James is the oldest active NBA player but still one of the top players in the league.

Forty-three-year-old Venus Williams, former world No. 1 in both singles and doubles, celebrated her 30th year on the World Tennis Association Tour last year.

Simone Biles, the most decorated gymnast in the World Championships history, became the oldest gymnast to win the 2023 U.S. all-around (for the record eighth time) at 26. She is reportedly all set to compete in the 2024 Paris Olympics.

Football legend Tom Brady won a Super Bowl at 43 before retiring at 45.

More professional athletes nowadays are pushing perceived age limits of their respective sports and successfully competing against much younger promising rivals.

So, what can we learn from the elite sports stars that would help us stay healthier and fitter well into our 50s, 60s and beyond? The answer is you don't have to exercise as hard or eat exactly the way pro athletes do, experts say, but you could do things to prevent faster physical mobility decline and get the most out of what you ingest.

Northeastern Global News talked to Northeastern experts to answer these key questions.

What are the keys to longevity?

Longevity depends on a combination of factors, says Carmen Sceppa, dean of Bouvé College of Health Sciences and professor of health sciences at Northeastern, most importantly—on healthy eating and physical activity and exercise.

Both unstructured physical activity and goal-oriented, intentional

exercising, she says, are very important for building muscle mass, aerobic capacity, endurance, flexibility and efficient and faster metabolism.

Our bodies are a combination of muscle mass, bones and fat.

"For athletes the balance of muscle and fat affects performance," Sceppa says.

Increase in muscle mass means burning energy—calories—which can lead to less body fat.

For non-athletes, especially as people get older, Sceppa says, fat in the abdomen becomes a health risk factor that can lead to diabetes. But she warns that losing extra weight through a strict diet or by taking Ozempic, a diabetes medication that lowers blood sugar, without exercising is actually unhealthy, because we are not building but losing muscles, too, this way.

How much exercise do we need?

With age, our bodies tend to lose strength and the extensibility of the muscles, which results in decreased mobility, says David Nolan, associate clinical professor of physical therapy, human movement and rehabilitation sciences and director of Sports Physical Therapy Residency at Northeastern.

"Many of these athletes are spending a lot of time dedicated to managing that on a day-to-day basis to prevent that decline," Nolan says.

If an average person wants to remain fit and healthy and be able to do different activities such as playing with grandchildren, Nolan says, they should be doing 30 to 60 minutes of moderately intensive exercise three

to five times a week. Generally, it should be a mix of cardiovascular health and mobility work, he says.

Moderate intensity means, from a cardiovascular standpoint, that the activity is challenging you, but you are still able to have a conversation while working at it. From a strength standpoint, if you are doing an exercise such as a bicep curl, you want the last two or three repetitions of the set to feel challenging.

What is the best way to start an exercise program?

It is easier and safer to start with building up your cardiovascular abilities, Nolan says, introducing exercise or a fitness activity slowly. You might want to start with going for longer walks, jogging, cycling, swimming or integrating other exercises that engage your muscles to get your body ready for the added challenge.

If you feel like you don't have time to exercise, Nolan says, try finding small ways to work on it—a walk at lunch or after dinner once a week, a little recumbent bike under your desk to do some pedaling while you're at work.

Most importantly, choose an activity that you enjoy, whether it is pickleball or basketball.

"Because if you don't, then you're going to find reasons to not do it," he says.

How many calories do I need to cut?

If you don't exercise enough, Sceppa says, pay attention to your food intake.

"It takes 3,500 extra calories to put one pound on," she says. "If the food intake exceeds physical activity by 500 calories a day, you can gain one pound in the course of a week."

Competition in professional sports is ruthless, says Jules Hindman, a nationally recognized certified sports nutritionist and owner and founder of the Eat Well Perform Well program who has worked with Northeastern athletes. Athletes have to find every little trick to come out on top.

"Nutrition is the missing link for most athletes," she says.

What we put into our bodies affects our energy levels, mood, acuity and ability to function and feel better.

How much water should I drink a day?

First, assess your hydration.

"Hydration plus electrolytes will literally make you feel unbelievable until you're 101," Hindman says.

Divide your weight in pounds by two—this is your starting point of daily water intake in ounces. So if you weigh 150 pounds, you should drink about four and a half 16.9-ounce bottles of water a day. Adjust that volume further, so that your urine is a pale yellow to clear in color.

What are the best foods?

Looking at food, Hindman recommends both to her athletes and lay clients that they consume whole foods.

"If it runs, grows [in the soil], drops from a tree, your body knows what to do with that," she says. "You're not putting your hand in a bag, you're not putting your hand in a box, you're not going to the pantry. You're opening up the fridge—it's food that would spoil in the next few days."

How do I calculate calorie intake?

Use mobile apps to calculate the amount of calories you should be consuming, Hindman says, depending on your age, height and weight. An easy estimate is 10 calories per each pound of your body weight.

Generally, your meal should consist of protein (one third) and vegetables and a starch (carbohydrates) in equal amounts.

Protein keeps you satiated longer, is a natural fat burner and helps stimulate new muscle growth.

"You can have up to 0.8 to 1 gram of protein per one pound of body weight," Hindman says.

What are good fats?

If you're on a plant-based diet, Hindman says, look for vegan or pea protein. The best lean animal proteins, she says, are chicken, white fish, eggs, steak, Greek yogurt or cottage cheese. Salmon is a "good fat" and protein simultaneously.

"Good" unsaturated fats—avocado, coconut, olive oil, almonds or other nuts—have a lower disease risk.

Hindman advises to eat most carbs when you are the most active during the day. The everyday person doesn't need as many calories that athletes

are consuming to fuel their system, she says.

Can I have a drink?

Avoiding alcohol is a good idea, Hindman says, as it disrupts your body's ability to metabolize food and burn fat to protect the organs.

"When I work with my athletes, [I tell them] one drink affects one day of performance," Hindman says. "Same for the average person—if you're having four to seven drinks in a week that affects your metabolism for the full week."

If you are just starting eating healthy, start small, she says, maybe just start with proper hydration and a food log. You have to remember the mantra "progress over perfection."

"It's OK to have good days and bad days. It's OK to have a bad week of eating," Hindman says. "Every day is a new day."

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