

Creatine and cancer: Do they mix?

Creatine has become one of the most popular supplements for athletes and everyday fitness enthusiasts. But is it safe for people with cancer? The answer depends on where someone is in their cancer journey.

Creatine is a naturally occurring compound made from three amino acids. Your liver, kidneys and pancreas produce it, and it's also found in foods like red meat.

While your body makes creatine on its own, and you can get some through your diet, those amounts typically aren't enough to provide the performance benefits seen with supplementation.

Best known for helping muscles work harder during high-intensity exercise, creatine is one of the most researched sports nutrition supplements available. The most [studied form](#) is creatine monohydrate, which has been shown to improve exercise performance and increase lean muscle mass when paired with resistance training.

"There are three different forms that creatine can come in. It can come in a pill (capsule form), it can come in gummy form, or a powder form. There are different types of creatine; the most well-studied form is creatine monohydrate," says Gabrielle Raucci, outpatient clinical oncology dietitian with OSF HealthCare Cancer Institute. "All the studies we've seen say the best form is going to be powder. It's better absorbed by your body, and you can just take a scoop of it, add it to water and shake it up really well."

Most adults who choose to supplement should aim for about **three to five grams per day**, Raucci says.

Emerging [research](#) also suggests creatine may have benefits beyond muscle health. Recent studies have found promising evidence that it may help support brain energy metabolism and cognitive function, although researchers say more studies are needed to understand its long-term effects in healthy adults.

For people with cancer, however, timing matters.

"The main thing we focus on is that if you're undergoing an active treatment, like chemotherapy or immunotherapy, the kidneys can sometimes take a hit with those treatments. When your body breaks down creatine, it breaks it into a byproduct called creatinine," Raucci says. "When your oncologists are closely looking at your blood levels, we wouldn't want to take a supplement that could potentially bump your creatinine. So, make sure to talk with your care team if you're on an active treatment and you want to use one of these supplements. Because it could potentially affect your kidneys."

For cancer survivors who have completed treatment, creatine may be an option to help rebuild muscle mass, particularly when combined with regular strength training.

"If you're in survivorship and are looking to build your lean body mass up, it could be a safe supplement," Raucci says. "Check with your care team, they'll double-check your medications and see if it's something to build yourself up after treatment."

As with any supplement, people undergoing cancer treatment or managing other medical conditions should talk with their health care team before starting creatine to ensure it's appropriate for their individual situation.