GUIDE

The risk in a first CrossFit class is the dose, not the effort.

A 24-year-old's death at the New York City Marathon put rhabdomyolysis in the news. For a CrossFit beginner, the useful lesson is about the size of the work, and who sets it before the clock starts.

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On November 3, The Washington Post reported on rhabdomyolysis, a rare condition in which damaged muscle breaks down into the bloodstream, after it caused the death of a 24-year-old running her first New York City Marathon. A story like that can make a first CrossFit class feel reckless to someone who has not walked in yet. The medical record behind it points at the size of the work, not the fact of it, and the size of the work is something a coach can change before anyone moves.

Rhabdo risk tracks the size of the work, not the word hard

Dose, in a CrossFit class, means how many reps, at what load, how fast and for how long, measured against what that particular body has done before. The same whiteboard can be a routine session for someone two years in and a large, unfamiliar dose for someone on day one.

A 2026 case report in the journal Cureus, available through the National Library of Medicine's PubMed Central, names poor conditioning, unfamiliar exercise and sudden increases in training volume as recognized risk factors for exertional rhabdomyolysis. The same report lists CrossFit among the activities that commonly come before it, alongside marathon running, military training and bodybuilding, and CDC's own risk factor list for rhabdo includes high intensity workouts.

Most of this evidence is individual case reports, so nobody can name the rep count where risk begins. The three risk factors the Cureus report names, poor conditioning, unfamiliar exercise and sudden increases in training volume, describe the same thing: a gap between the work and what the body has been doing.

One way to scale a first CrossFit workout: 36 reps where the board says 90

Take one example. The classic 21-15-9 pairing of barbell thrusters and pull-ups, as written on the board, is 45 thrusters and 45 pull-ups: 90 reps. One way a coach might scale it for a first class is 9, 6 and 3: 18 thrusters and 18 ring rows, 36 reps, 60 percent less volume. The loaded barbell becomes a light training bar or a length of PVC pipe. Pull-ups become ring rows, where your feet stay on the floor and the angle of your body sets how much of your weight you lift. A time cap ends the workout at a fixed point whether or not the reps are done.

Each of those cuts lands on a risk factor the 2026 Cureus report names. Unfamiliar exercise: the new movements arrive in small amounts, with the load stripped out. Poor conditioning: lower volume and a time cap size the effort to a body that has not trained. Sudden increase in training volume: for someone whose current volume is close to zero, 36 reps is a step and 90 is a leap.

When doctors discharged the 22-year-old in a 2021 Cureus report on CrossFit rhabdo, their instruction was to avoid sudden strenuous physical activity but to scale up in a graded fashion. A scaled first class applies that instruction on day one instead of after a hospital stay.

You still breathe hard. You still learn the thruster. You leave with the pattern in your body and a dose you can recover from. The board is a starting point, not a standard you are being measured against.

Willpower cannot hold back a dose a beginner's body has never felt

Holding back requires knowing what too much feels like, and the first time a body does high-rep squats or pulls, that knowledge does not exist yet. Willpower is the wrong tool to hand a nervous person: it puts the whole decision on the one person in the room with the least information.

A 2021 case report in Cureus shows self-regulation failing on the record. A 22-year-old man, described by his doctors as healthy and fit, came back from a break of a few weeks and did three hours of abdominal crunches, sit-ups and weight lifting. Whatever he felt during those three hours did not stop him. His symptoms began two days later: body aches and dark urine. The authors flagged the risk "especially in beginners who do extensive sessions without initial warmup." If a fit man with a training history could not feel the dose in time, a nervous beginner on day one has less to go on.

CDC says the same delay holds for rhabdo in general: symptoms may not begin until hours or days after the muscle injury. The warning a beginner would need in order to hold back arrives after the class is over. During the class, the clock rewards finishing and the board presents the full dose as the assignment.

Watch for this in a first class: before writing down your numbers, the coach asks what you have done in the past month. That question measures the gap that matters, the work against what your body has been doing, and only you can answer it. If you race the first round anyway, a good coach cuts the next set before you have to decide. The decision moves out of the moment when judgment is weakest and onto the person with the reference point.

Dark urine after a CrossFit workout is a clinician's call, not a coach's

Dark urine after a CrossFit workout is one of the rhabdo signs CDC lists plainly: muscle pain more severe than expected, dark urine the color of tea or cola, and weakness or fatigue that makes it hard to do what you could do before. Those signs are where coaching ends: CDC says to get medical care right away, and only testing can tell rhabdo from heat illness or dehydration, so a good coach sends that person to a clinician, not back to the next class.

The strongest case against scaling: fit athletes get rhabdo too

Rhabdo is not only a beginner problem, and that is the strongest case against this essay. CDC calls it a common misconception that only unfit or out of shape people get rhabdo, and says it can happen after activities people have done before. If trained people get

rhabdo, the argument goes, scaling beginners guards against the wrong thing, and the honest message is that hard exercise carries a small risk for everyone.

The objection is right about the facts and wrong about the conclusion, and the fit athlete in the 2021 Cureus CrossFit case shows why. His doctors described the 22-year-old as healthy and fit, a man with a training history, not a beginner. The authors also recorded that his three-hour session was different from his usual routine, and that it came after a break of a few weeks. His fitness did not protect him from work his body had not been doing.

CDC's point that rhabdo can follow familiar activities fits the same pattern: a familiar movement at an unfamiliar volume is still a new dose. The 2026 Cureus report names sudden increases in training volume as a recognized risk factor, alongside poor conditioning and unfamiliar exercise. Trained athletes and beginners get rhabdo by the same mechanism: work that outruns what that body has been doing.

For a beginner, that gap is at its widest, because the movements and the volume are both new, and the beginner is the person least able to measure it. That makes the first class the place where adjusting the dose does the most work. Scaling does not make anyone immune. It removes the most avoidable part of the risk: an unfamiliar, high-volume first session done at somebody else's numbers.

> Willpower is the wrong tool to hand a nervous person: it puts the whole decision on the one person in the room with the least information.

Hard work at the right size is how an untrained body becomes a trained one, and on day one the right size is smaller than the board. The same logic sets who a first class does not suit: anyone a clinician has told to avoid hard exercise for now, anyone recovering from an injury who needs one-to-one care from a physical therapist, and anyone who wants the board's numbers on day one and will not take a scaled dose, because the scaled dose is the protection. For everyone else, there is one moment worth watching for, and it comes before the clock: the coach walks over with your numbers, not the board's. When that conversation happens, the dose has been sized, and the effort is yours to give.

Further reading

1. The Washington Post, report on rhabdomyolysis after the death of a 24-year-old first-time New York City Marathon runner; the news event this essay applies washingtonpost.com/wellness/2026/11/03/rare-muscle-condition-that-caused-24-year-old-marathoners-death
2. CDC NIOSH, Risk Factors for Rhabdomyolysis: lists high intensity workouts, strenuous tasks and heat as risk factors cdc.gov/niosh/rhabdo/risk-factors

3. CDC NIOSH, Signs and Symptoms of Rhabdomyolysis: symptoms and their delayed onset cdc.gov/niosh/rhabdo/signs-symptoms
4. CDC NIOSH, Rhabdomyolysis and Work: the misconception that only unfit people get rhabdo, and the guidance to get medical care for symptoms; used for the objection section cdc.gov/niosh/rhabdo/about
5. Adhikari, Hari, Morel and Bueno, Cureus case report "Exertional Rhabdomyolysis After CrossFit Exercise": a healthy 22-year-old after three hours of unaccustomed CrossFit work; the real reported case behind the dose argument pmc.ncbi.nlm.nih.gov/articles/PMC7872485
6. Cureus case report (2026), exertional rhabdomyolysis in a previously healthy 36-year-old: names poor conditioning, unfamiliar exercise and sudden increases in training volume as recognized risk factors and lists CrossFit among common precipitating activities; the source behind the risk factor paragraph pmc.ncbi.nlm.nih.gov/articles/PMC13430158

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