



Naval Safety Center

LESSONS LEARNED



LL 21-23

PHYSICAL TRAINING INJURIES

“Quit with the excuses” – Arnold Schwarzenegger

Exercise carries benefits beyond helping you become more physically fit or lose unwanted pounds. It boosts energy, improves mood, promotes better sleep, and more – but that’s only if you exercise safely. Unfortunately, hundreds of Sailors, Marines, and civilian employees injure themselves in a variety of ways while exercising. In the worst cases, we lost three Sailors and four Marines in 2020 and one Sailor and four Marines so far in 2021. Our database also showed more than 150 reports of physical training (PT)-related injuries since the beginning of FY 2021, and the year isn’t over yet.



Have a read and learn how to avoid the avoidable from our “workout warriors.”

- **Seize The Day.** After work, a Sailor headed to the barracks and decided to go for a run. The report stated that during the run, he collapsed when his leg “seized up and went numb.” He tried to stretch out his leg and walked back to the barracks. Once there, he continued to ice and stretch, and he followed up with medical the next day. The Sailor was diagnosed with a total calf muscle pull and placed on 24 hours sick in quarters (SIQ) and seven days on light duty. — *Admittedly, the Sailor didn’t properly warm up before his run, which likely would have saved him a severely pulled muscle and an unplanned visit to medical. Please warm up first.*
- **Not Ready.** A Sailor was performing the cardio portion of the Physical Fitness Assessment (PFA) when he had to stop, according to the report, “due to chest pain from his poor physical condition.” Fortunately this Sailor didn’t suffer any long-term injury, but that could easily have happened if he had continued the cardio. — *We can’t speak to this Sailor’s fitness level, but chest pain during the PFA isn’t a positive sign. Physical fitness isn’t just for the service, it’s for your personal health too. Make PT a part of your regular routine, not a “once every six months” event.*
- **Running on Empty.** A Marine felt pain in his back after unit PT. He didn’t think much of the pain at first, but when ibuprofen didn’t work, he decided to get checked out a few days later. He was diagnosed with rhabdomyolysis with acute kidney injury and spent three days in the hospital followed by 14 days on light duty. The report mentions the Marine’s lack of hydration and improper diet before PT, both of which may increase the risk of rhabdomyolysis, also known as “rhabdo.” — *PT injuries don’t just happen to those of us who are out of shape. Hardcore fitness folks face their own challenges. When you are going to PT, a good diet and hydration are essential. Extreme overexertion is another cause of rhabdo. Respect your body’s limits and take rhabdo-avoiding measures.*
- **You’re Doing It Wrong.** A Sailor was participating in command PT. After about six reps of core exercises, he felt a sharp pain in his lower back and immediately stopped doing the exercise. He stated that he was “possibly doing the exercise incorrectly.” He strained his back and spent four days on light duty. — *The report doesn’t say which exercise he was performing, but doing any move wrong repeatedly will not “work out” well for you. Using the wrong form puts undue stress on muscles, tendons, and ligaments. Please learn and use proper techniques.*

- **Energy Drinks ≠ Hydration**. While performing the PFA, a Sailor became physically unable to complete the run. The report has scant additional details other than the Sailor only consumed an “energy drink” before the PFA. — *Energy drinks may provide some quick energy, but they don’t provide fitness. If you aren’t fit, no amount of energy drink will get you a passing score on the PFA or PFT (the Marine Corps’ Physical Fitness Test). Water is the better choice, and don’t wait until “go time” to start drinking it. You won’t see “consume energy drinks regularly” on any reputable health or fitness website. Think about that.*
- **No Applause Please**. A Sailor was doing hand-clap pushups in his barracks room when he missed one and hit his chin on the floor. — *The report doesn’t mention how many hand-clap push ups he completed successfully, but a split chin requiring six stitches takes the impressiveness out of the whole performance.*
- **Let’s Face It**. While working out at home, a Sailor’s fitness band anchor dislodged from the door, striking him on the nose and fracturing it in five places (*eesh! our eyes are watering just thinking about it*). — *After two lost workdays, surgery, and lots of pain, our workout “bandit” will probably make sure his fitness bands are secured in the future. We hope you will too.*
- **Pull Downs**. After a command exercise (*the “drill” kind, not the PT kind*), a civilian employee entered the front office to give an after-action report. He noticed a pull-up bar hanging on the door and decided to do some pull-ups. The pull-up bar dislodged from the door and the employee fell to the floor, dislocating and fracturing his ankle. — *With two days SIQ and weeks in an orthopedic boot, we hope the drill-exercise went better than the pull-up-exercise. As with our disbanded Sailor in the earlier example, please remember this example and make sure the equipment is secure before you use it.*

Key Takeaways / Lessons Learned

1. **Make physical fitness part of your everyday life.** If your only workout regime is the semi-annual fitness test, you may want to rethink your life choices. The Navy and Marine Corps both emphasize physical fitness as an essential component of combat readiness, and you should too. If you are SIQ or on light duty, you aren’t ready. The benefits of fitness and an overall healthy lifestyle far outweigh the 150 minutes per week it takes to stay fit.
2. **Just do it...right.** Even if you work out regularly, your technique can be wrong from the get-go, or may slip as you do more sets and reps. Learn proper techniques for all exercises, and if you can’t maintain proper form, that may be a sign to give it a rest. While you’re at it, know the equipment too. Ask for assistance before you try something new; don’t just wing it. While we’re on the topic of new things, remember, the Navy has replaced the curl up with the plank and the Marine Corps has added the plank as an alternative (and eventual replacement) to their abdominal crunch. There’s a proper technique to the plank, so don’t wait until the week before your fitness test to learn it. It’s harder than it looks.
3. **Your body is an engine; don’t let it run out of fuel or coolant.** The best-case scenario if you don’t hydrate (*and start early*) or maintain an adequate calorie intake before working out is that you’ll feel tired or get a headache. The worst cases are a severe heat stress illness, rhabdomyolysis, or worse. If you are extremely thirsty while working out, you’re probably already dehydrated. Start hydrating early (*days, not hours*) before your workout. And if you’re performing an extreme fitness regime, respect your body’s limits while providing proper nutrition and hydration to avoid muscle tissue damage and kidney failure.
4. **Know yourself and your teammates.** In all but the equipment failure examples in this lesson, there were likely warning signs before our warriors tapped out. Keep an eye on your teammates too. Know the signs of heat stress illness and dehydration like confusion, dizziness, dry skin, etc. You can find out more online via a quick web search. Also check out our lesson learned LL 21-18 Heat-Related Mishaps for more tips.

And remember ... “Let’s be careful out there.”