CREATED BY KELSEY TANLER, DAT, LAT, ATC
MCFR HEALTH & INJURY PREVENTION

MCFR MONTHLY WELLNESS

OCT 2024

LOAD CARRIAGE & IMMOBILITY: HOW TO ADAPT TO DECREASE INJURIES

Load Carriage Requirements

When looking at all of the physical demands of working in fire rescue, the biggest biomechanical risk factors that can cause injury are strange postures and load carriage. **Load carriage** is carrying weight, commonly on your back, while moving. This is seen when wearing your PPE, SCBA and when carrying equipment. **The way you adjust your SCBA can greatly affect your risk of injury**. If you have a tendency to strap on your SCBA and pull down the shoulder straps tight first before your waist strap, you may be more at risk for back, hip, knee, and ankle injuries (on top of a lot of soreness in your shoulders). Try readjusting your SCBA and tightening the hip straps first, then the shoulder straps. The hip straps should sit above your hip bones like a belt. Most of the weight of the SCBA should be placed on the hips and not the shoulders. This creates less strain on the body and distributes forces better so that you aren't loading too much weight on one area. Also, try to **avoid jumping out of the unit while wearing your SCBA!** This puts a large amount of force through your lower body and increases your risk of lower body injuries. **Equipment storage** can also play a huge factor in how loads are distributed through the body. Station 33 and others have started storing their EMS equipment in the side compartment of the engine (see photo below).

This allows them to not have to pull out EMS equipment from up above their heads or climbing out of the engine while carrying equipment, thus creating less strain on the back and shoulders.

Immobility & Risk of Injury

Think of how mobile you are right now with no PPE on. On a scale of 1-10, how would you rate your mobility? Now take that number and divide by 1/3. That divided number is how mobile you are when in full PPE. **Your functional mobility greatly decreases when in PPE** due to turnout gear causing restricted movement, weight of tools/SCBA, and forcing your head/neck and shoulders forward. The less mobile your joints are, the greater your likelihood of injury. **As was covered in the July newsletter, shoulders were the lowest average score on the Functional Movement Screen (FMS)**. However, if you were to take 10 people with poor shoulder mobility and ask if they have had a recent injury or surgery that is causing their immobility, only about 3 out of 10 would say yes. The remaining all suffer from a **lack of thoracic spine mobility,** causing their shoulders and neck to round forward, thus locking out the shoulder joint. Fixing your thoracic spine mobility and preventing shoulder injury is an easy fix, you just need to know where to start! ***Click on the link below to be taken to a thoracic spine mobility program.*** Ideally, you want to work on your mobility once every day. However, you can start by practicing this program every shift day until it becomes routine.

THORACIC SPINE MOBILITY

Click above!!

CLICK HERE TO MAKE AN APPOINTMENT WITH DR. KELSEY TANLER

Dr. Kelsey Tanler

Certified Athletic Trainer
MCFR Health & Injury Prevention

Did you know that you have someone working within MCFRS to provide you with quality injury care, injury prevention, and functional assessments to lengthen your time on the floor and keep you out of FROMS?

Dr. Kelsey Tanler began with MCFRS in February 2023 as the department's first ever Athletic Trainer in charge of health and injury prevention. ***Dr. Tanler is the only Athletic Trainer working with a fire rescue department in the state of Maryland and prides herself in preventing injury and keeping personnel on the floor.***

IMPORTANT ANNOUNCEMENT!

Beginning October 7th, Kelsey's availability is changing! She will now be available every day **(M-F) from 0700-1100**. During this time, she will be available for station visits, individual appointments, and making regular rounds up to the PSTA.

3rd BATTALION STATION VISITS IN OCTOBER!

Click on the link below or ask your Battalion Chief for more information on signing up!

3rd Battalion Visit Sign-Up

kelsey.tanler@montgomerycountymd.gov
(240) 962-0147