

BUILD BACKS BETTER

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Odds are you're gonna hurt your back, if you haven't already. Every year, tens of thousands of firefighters get hurt on duty – and that's just the injuries getting reported. Back injuries are the most common, most expensive and hardest to recover from.

One in three firefighters reports having back problems right now. Back pain causes more lost work time than any other injury – hurt yours and statistics say you've got a good chance of missing more than a month of work. Job-related back pain is our industry's leading cause of drop-out and early retirement.

HOW ARE WE HURTING OUR BACKS SO MUCH? **PROBLEM ONE: OVEREXERTION**

Chalk part of it up to our culture. Firefighters, whether by nature or by nurture, possess a certain amount of... let's call it "swagger." This is usually good, considering that what we're often called on to do requires grit that some people lack and many admire.

On the flip side, though, that "salty" culture often values bravado over safety, which can get some of us into trouble. That trouble frequently comes from acute overexertion, the root cause of most firefighter injuries. Whether lifting and carrying, throwing ladders, or pulling ceilings, during calls or back at the station; when we try to apply more force than our bodies are conditioned for, especially with bad posture, we prime the pump for an injury.

Further, physical fatigue dampens brain activity in areas governing decision making and impulse control. So during crunch time, when judgment really matters, we often can't hear that little voice saying "you probably shouldn't lift that alone" or "maybe it's time to take a break."

PROBLEM TWO: DECONDITIONED PERSONNEL

Overexertion, back pain and injury are directly related to low physical fitness, and fire service fitness is staggeringly poor: more than 80 percent of us are overweight or obese, while our physical exercise levels average lower than minimums recommended for even the general population.

On top of that, we don't sleep well. Roughly 2 in 5 of us suffer from sleep disorders, and sleep deficits put you more at risk for chronic back pain and overexertion injuries.

PROBLEM THREE: AN AGING POPULATION

Personnel in their 40s are the most frequently injured among us, though we in our 50s are catching up as the average age of active personnel steadily climbs. Why is that?

Data shows most firefighters start gaining weight as soon as they enter the service – as much as 6 to 8 pounds every few years. Those pounds add up over time, increasing the risk of overexertion and back pain.



And unlike wine, your spine doesn't get better with age. For us, aging is linked to low back disc degeneration. Topping it off, more birthdays mean more recovery days: work time lost due to an injury increases by 20% as we get older.

And if, like many of our older saltier dogs, you've had a back injury already, you're prone to losing muscle and mobility in the spine – making you more likely to hurt your back repeatedly if you don't actively work to maintain its strength.

HOW DO WE ADDRESS THESE PROBLEMS?

First off, we need to address our epidemic of obesity and subpar fitness. Deconditioned emergency responders are almost ten times as likely to get hurt. Physical conditioning develops strength and stability, and increases circulation in muscles and joints, helping protect your back.

Deflating that spare tire doesn't just lower a firefighter's risk of dying from cardiac arrest or cancer; it also boosts back and core endurance by 30 percent, which data shows reduces back-related lost duty days by a whopping 74 percent.

WHAT CAN DEPARTMENTS DO?

Department wellness programs are desperately needed to improve responder health, fitness, resilience and injury resistance.

Studies found workplace exercise programs supervised by qualified personnel (e.g. a certified fitness professional or IAFF Peer Fitness Trainer) enhanced back and core endurance, lowering injury risk and reducing lost work time. The coach doesn't even have to be there: lower cost tele-health or "remote fitness training" was at least as effective as in-person supervision.

As psychological and occupational stress have been shown to trigger back pain, workplace wellness programs should include a stress management component. Back health education programs further reduce injuries and related costs. Departments could partner with a spine or orthopedic specialist, chiropractor, or physical therapist to provide such programs.

We should evaluate our rehab SOGs. Firefighters usually want to work at a job, and aren't likely to go voluntarily to rehab. But exercise fatigue not only increases overexertion injuries, it also reduces judgment and impulse control. On long or difficult incidents, frequent breaks should be enforced to allow for muscular, cardiovascular, and central nervous system recovery.



WHAT CAN INDIVIDUAL FIREFIGHTERS DO?

If, at the end of the day, you want to go home upright and reduce current back pain or your risk of developing future pain, you need to work on fitness and conditioning now.

For injury resistance and pain reduction, performing exercises twice a week that stabilize your low back and strengthen your core – especially the deep abdominals – will pay huge dividends. I don't have space here for details, but will link to "Build Backs Better" exercises on my website, www.roysmalley.us.

For general fitness and conditioning, a program of moderate intensity strength training and cardiovascular exercise will help build overall endurance while reducing that spare tire and the associated health risks.

If you or your department need ideas or assistance, I would be pleased and honored to offer help. Feel free to reach out – you can contact me through my website.

An independent personal trainer for nearly fifteen years, Roy is a certified Fire Officer 1 and Emergency Services Instructor 1. He currently serves as the training officer and health & safety officer of Mayville Fire Department in Mayville, Wisconsin, where he and his wife own Center Circle Fitness, raise their family, and volunteer in the community. Roy is online at www.roysmalley.us where your questions and comments are always welcome

