

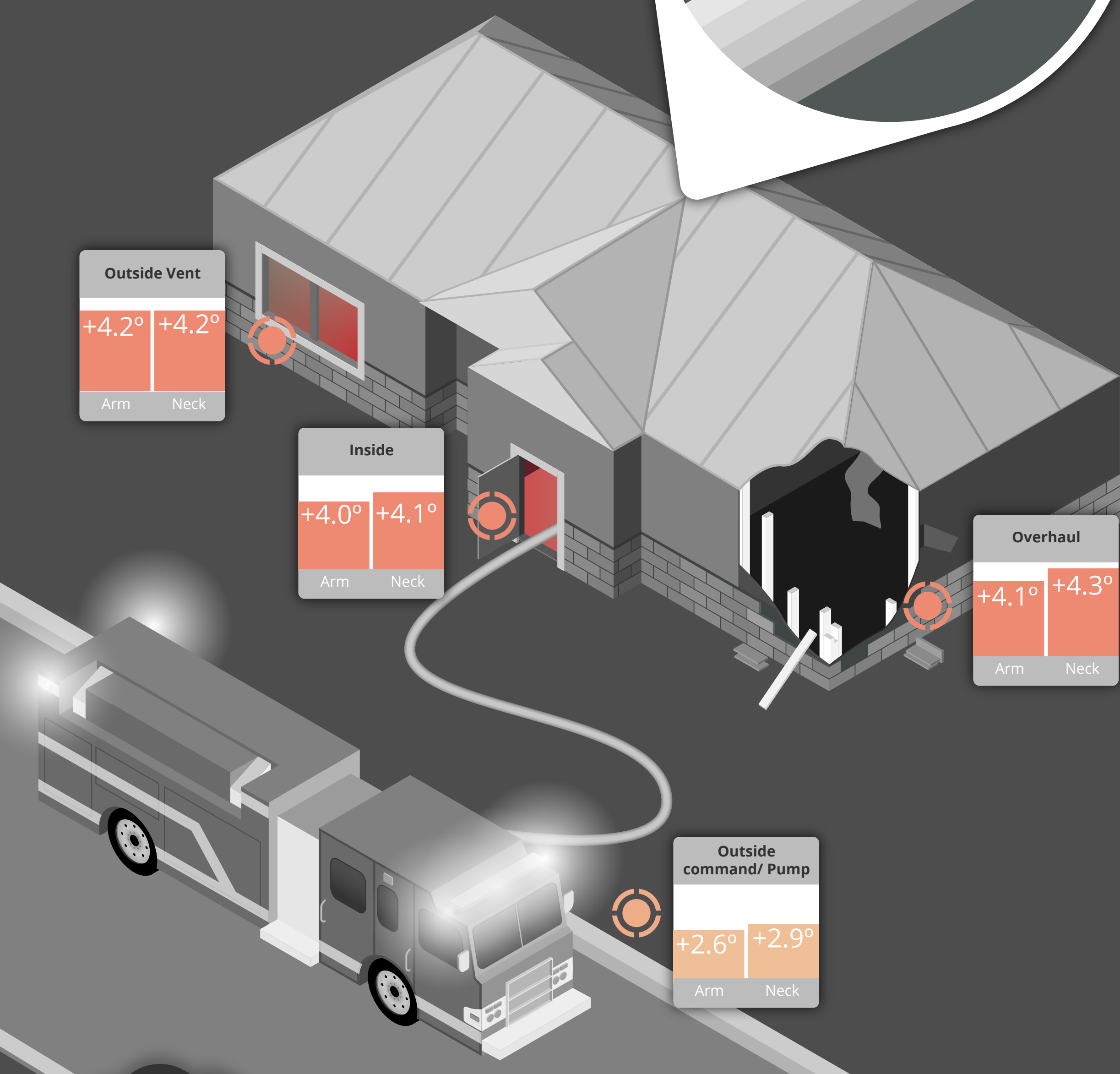
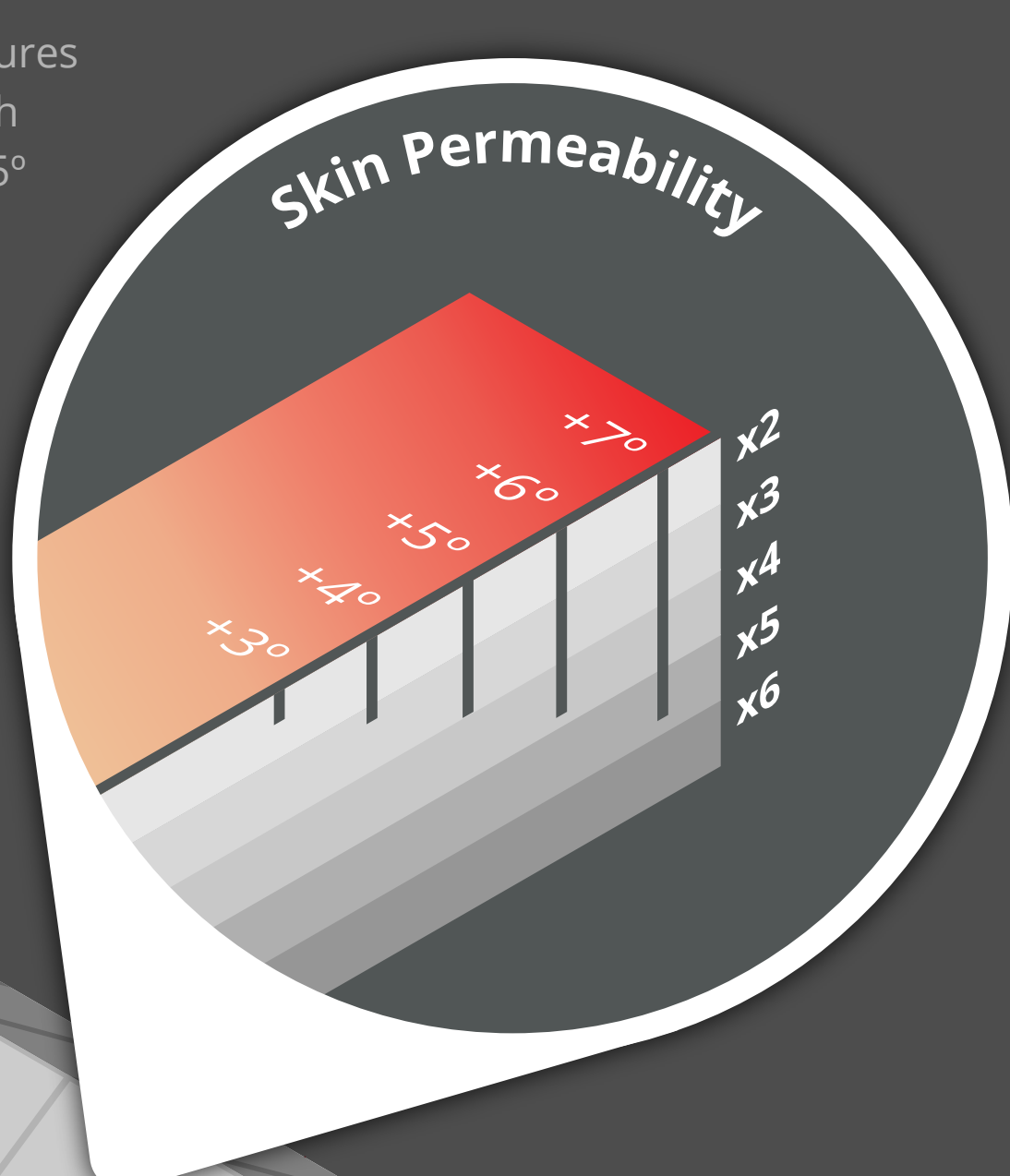
THINK YOU'RE HOT? So Does Cancer

An increase in skin temperature leads to a higher penetration of cancer-causing substances.¹



YOUR JOB COULD BE THE HOTTEST. Where to play it safe

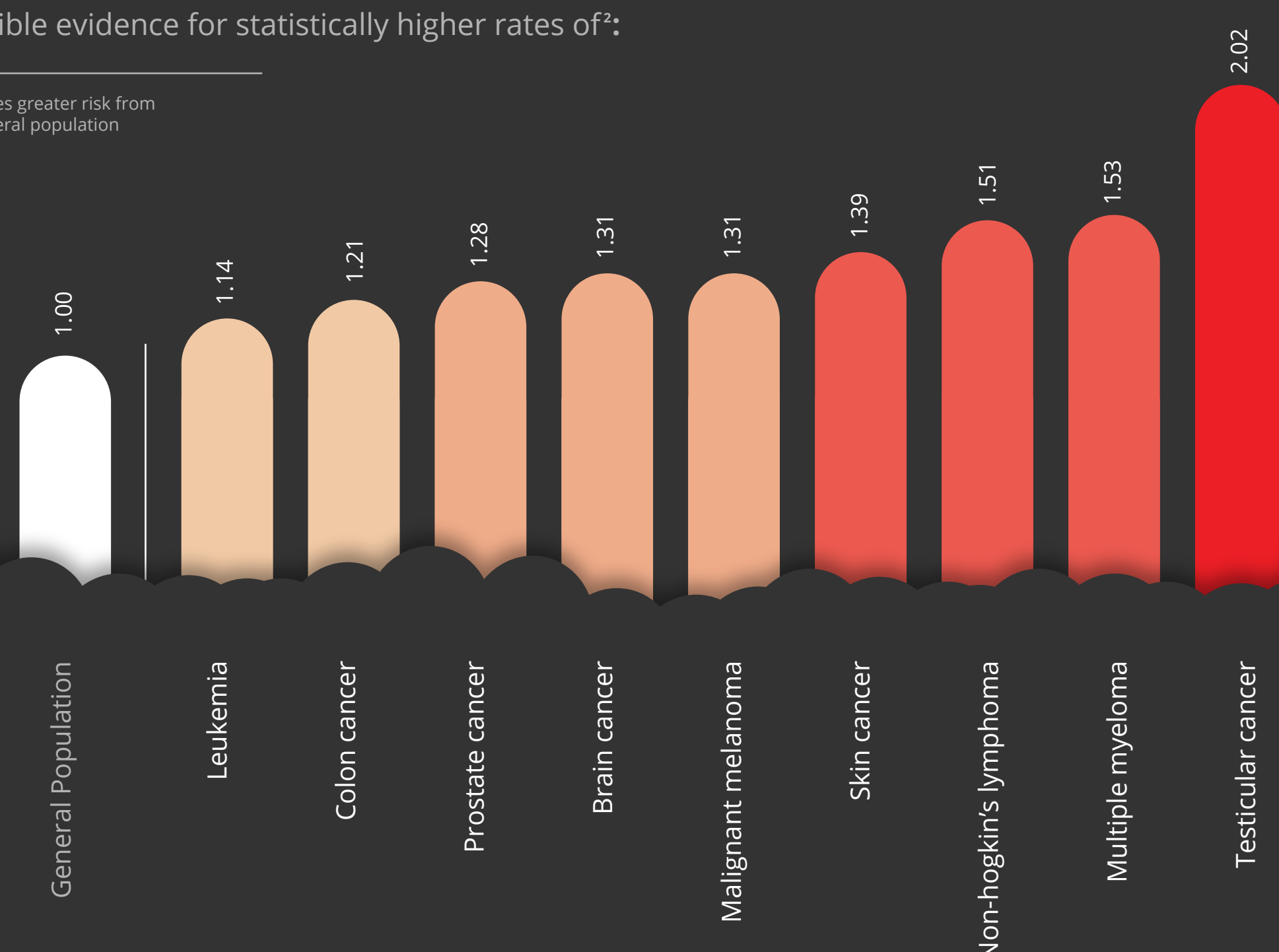
A 2017 study by G. Horn, et al. shows that skin temperatures can reach more than 100 degrees Fahrenheit during both interior and exterior fireground operations. With every 5° increase in skin temperature, absorption of dangerous chemicals increases by 400%.^{2,3,4}



YOU ARE THEIR TYPE. What to look out for

Among fighters, multiple studies have demonstrated credible evidence for statistically higher rates of⁵:

Times greater risk from general population



IT'S NOT ME, IT'S YOU. How to reject cancer

It is critical that you take immediate action to protect yourself.⁵

Use SCBA and PPE
Use SCBA from initial attack to finish of overhaul.

Decon Gear
Do gross field decon of PPE to remove as much soot and particulates as possible.

Wipe your Skin
Use a wipe to remove as much soot as possible while still on the scene.

Tag & Bag
Remove & Bag your turnout gear from the scene whenever possible.

Shower
Shower thoroughly within 1 hour after a fire.

Replacement Gear
Have a way to obtain clean gear immediately following the incident.

Clean Apparatus
Decon fire apparatus interior after fires and avoid putting gear inside the crew cab.

Document Exposures
After each call, document your exposures to help evaluate your risk.

Start documenting your exposures at FirstForward.com



1. Brandt-Bauf PW, Fallon LF Jr, Tarantini T, et al. Health hazards of fire fighters: exposure assessment. Br J Ind Med. 1988;45:606 - 612. 2. Golden AL, Markowitz SB, Landrigan PJ. The risk of cancer in firefighters. Occup Med. 1995;10:803-820.
3. Horn GP, Kesler RM, Kerber S, et al. (2017). Thermal response to firefighting activities in residential structure fires: impact of job assignment and suppression tactic. Ergonomics. DOI: 10.1080/00140139.2017.1355072.
4. Freitas reference: Robert A. Freitas Jr., Nanomedicine, Volume I: Basic Capabilities, Landes Bioscience, Georgetown, TX, 1999.
5. Graphics represent the average skin temperature from Freitas, 1999 and the maximum skin temperatures for interior attack from Horn, et al to estimate the increase in skin temperature.