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6 FT VS 12 FT FREE FALL

6 FT FREE FALL

A 6'
B 4'
C 6'
D 2'
=18'

12 FT FREE FALL

A 12'
B 5'
C 6'
D 2'
=25'

CALCULATING FREE FALL

$A + B + C + D =$
TOTAL FALL CLEARANCE

A. Free fall distance
Original working length before a fall event occurs/before activation of energy absorber.

B. Deceleration distance
Maximum allowable amount of elongation that may payout from the energy absorber upon activation during a fall event.

C. Height of dorsal D-ring
Typical average height of the dorsal D-Ring on a user's full body harness measured from the walking/working surface up.

D. Harness stretch & dorsal D-ring shift + safety factor
Combined amount of harness webbing elongation and dorsal back D-ring up-shift during entire fall event.

6 FT FREE FALL

12 FT FREE FALL

LOOK FOR THESE BADGES THROUGHOUT THE CATALOG.

Typical twin leg lanyards are designed to arrest the forces associated with a maximum fall distance of 6 feet. Ideally, your anchorage is above you, so a standard 6 foot lanyard that's attached to your dorsal D-ring will limit your free fall to an acceptable distance.

When you don't have an overhead anchorage, your fall distance increases. The lanyard won't begin to stop you until your lower anchorage is now above you. A standard lanyard is not designed to safely stop you while you're falling from that distance. There are specially designed lanyards for these situations.

12 foot free fall lanyards have a maximum deployment distance of 60", so fall clearance needs to be taken into account. Fall clearance is the distance below your anchorage point that you'll fall without hitting the surface, or a structure below you. To calculate for a standard 6 foot free fall from an overhead anchor, take the length of the lanyard, 6 feet, plus the shock pack deployment, 48 inches, or 4 feet. Then, add your overall height, let's say 6 feet. So far we're at 16 feet of clearance. Finally, add a safety factor, 2 feet, to account for things like harness stretch and shifting. For this scenario, you'd need at least 18 feet of fall clearance before the nearest obstruction

to safely work. A foot level anchor requires more distance for the lanyard to begin stopping the fall, even though both lanyards are still 6 feet in length.

There are also some lanyards available which can be used in both 6 foot and 12 foot free fall scenarios. Check the badges and descriptions to find the right lanyard for you. If you have more questions, give one of our Gear Experts® a call.

