

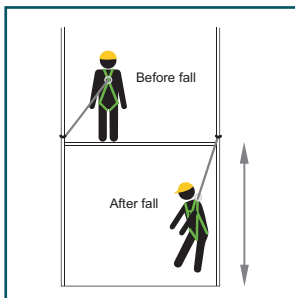
GETTING TO GRIPS WITH THE WORK HAZARDS!

Understand your fall factors to reduce the risks!

There are three fall factors in fall arrest that relate to the position of the anchorage point. They are used to determine the potential fall distance of a worker and so ensure that there is no risk of contact with the lower level in the event of a fall. When possible, the worker should always use an anchorage point at shoulder level or above (Factor 1 or 0). A higher anchorage point will reduce the fall distance and therefore significantly reduce the risk of injury on the body due to the impact forces of a fall.

THE MAXIMUM FALL DISTANCE USING A 2M SHOCK ABSORBING LANYARD

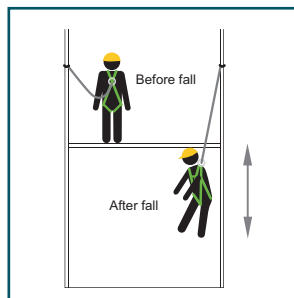
GOOD



Factor 2 (below the feet)

The worker will fall 5.75m
(Twice the length of the lanyard + the deployed shock absorber)

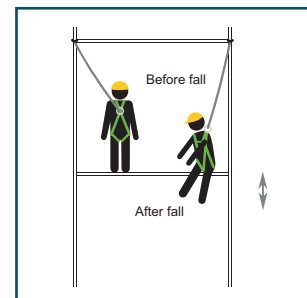
BETTER



Factor 1 (at shoulder level or above)

The worker will fall a maximum of 3.75m (the length of the worker and the deployed shock-absorber)

BEST



Factor 0 (taut above head)

The worker will fall a maximum of 1.75m (the length of the deployed shock absorber, if deployed)

CALCULATING FALL CLEARANCE

When using a shock-absorbing lanyard it is important to understand how to calculate the potential fall distance to avoid contact with the lower level.

The calculation below gives the minimum fall clearance required between the anchorage point of the lanyard (at Fall Factor 2) and the lower level.

- Twice the length of the lanyard (to allow for the length of the lanyard and the height of the worker)
- +1.75m deceleration distance to allow for the elongation of the shock absorber and any give in the lanyard
- +1m safety margin

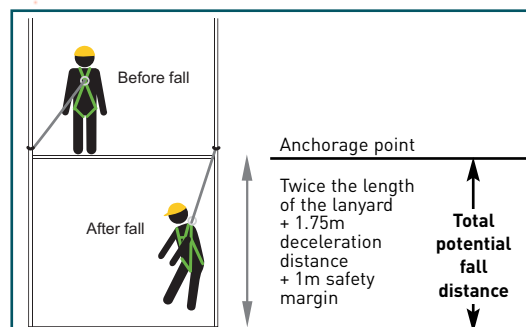
Example:

Using a 2m lanyard in fall factor 2:
 $2 \times 2\text{m} + 1.75\text{m} + 1\text{m}$.

The required fall clearance = 6.75m

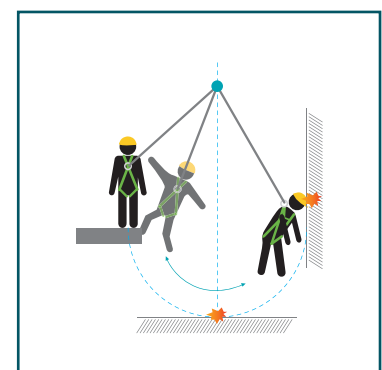
Using a 1.5m lanyard in a fall factor 2:
 $2 \times 1.5\text{m} + 1.75\text{m} + 1\text{m}$.

The required fall clearance = 5.75m



THE SWING FACTOR

If the lifeline is not anchored vertically over the working place, the worker will swing laterally in the event of a fall and can injure himself by hitting either the ground below or an obstacle to the side of him. If it is not possible to use an anchorage point close to the work station, two anchorage points either side of the worker can be used to prevent any swing.



IF IN DOUBT: FALL LIMITERS REDUCE FALL CLEARANCE < 3M

A fall limiter or self-retracting lanyard will stop a fall in centimetres and is therefore the ideal solution for low-level work where a shock-absorbing lanyard is unable to stop the worker from hitting an obstacle below.