

SAFETY ALERT

High Energy Release Breaks Leg

Background

A serious harm incident occurred when an experienced tree faller was removing a large branch / double-leader from a fallen tree in the cut-over. The branch, under



compression, released suddenly striking the faller just below the left knee.

The faller suffered a break to his tibia and fibula that required surgical correction (screws and plates).

Notes

- The faller had identified the stored energy in the branch as a potential hazard.
- The faller used an observer.
- The branch was cut at the most logical place - near where it joined the tree.

The faller made the first cut from below – there was no pinching or splitting. As the top cut reached the centre the branch broke off without warning.

Once released the branch twisted toward the ground and struck the faller just below the knee with significant force.

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Why did the branch / leader have to be cut? It was considered necessary to remove the branch as it was hard up against a high stump (Tree C). And the high



stump was identified as a breaking-out hazard. The agreed objective was to remove the high stump.

What went right?

Almost everything! There were 3 qualified and competent fallers that discussed the issues and prepared a quality solution.

What went wrong?

A small miscalculation on how the branch would behave when released and the arc the branch would travel in when it was released. It amounted to a large consequence for a small error in judgement.

What will you do when faced with this situation?

There's an old carpenter's saying – **measure twice cut once**. When 25mm is the difference between a successful release and a broken leg it pays to calculate the likely arc and build in as much margin for error as practical.