# **CCOHS** CCHST

Canadian Centre for Occupational Health and Safety \* Centre canadien d'hygiène et de sécurité au travail

### Chainsaws

# **Chainsaws - Kickback**

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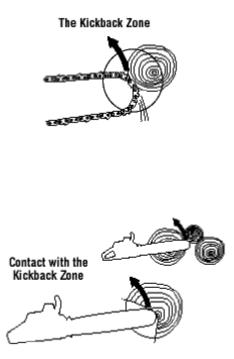
What is "kickback"?

How can I reduce the risk of kickback?

#### What is "kickback"?

Kickback is the term to describe the **unexpected upward motion of the guide bar**. Kickback occurs when the end portion of the nose of the bar (the kickback zone) strikes an object and the chain momentarily snags or is pinched. CSA Z62.3-11 (R2021) defines kickback as:

**Kickback** – the rapid upward motion of the guide bar that can occur when the saw chain, near the nose (tip) of the top area of the guide bar, contacts an object such as a log or branch (rotational kickback), or the backward motion that can occur when the wood closes in and pinches the saw chain in the cut (pinch kickback).



The most common and probably most violent kickback occurs when contact is made, either accidentally or intentionally, in this "kickback zone." In some cases, the blade tip may move upward and back toward the operator who could suffer a very serious or fatal injury.

#### How can I reduce the risk of kickback?

DO

- Select a chain saw that is equipped with kickback-reducing devices (e.g., chain brake, low kickback saw chain, reduced kickback saw chain) that are designed for the chain saw that you are using and that meet standards like the CSA Standard Z62.3-11(R2021): Chain Saw Kickback, or ANSI Standard B175.1-2021 (Outdoor Power Equipment Internal Combustion Engine-Powered Hand-Held Chain Saws Safety and Environmental Requirements). These devices will reduce but will not prevent kickback.
- Watch the guide bar nose. Do not let it touch logs, branches, or the ground when the saw is running.
- Make sure the chain brake functions and adequately stops the chain. The stopping power of a chain brake can be greatly reduced by wear, or by oil, dirt or sawdust in the brake parts.
- Cut only one piece at a time.
- Run the saw at full power when cutting.
- Keep the chain sharpened to specifications (e.g. correct depth and angle).
- Match chain and bar for exact pitch and gauge.
- Set depth gauges to the manufacturer's settings.
- Maintain correct chain tension.
- Hold the saw securely with both hands. Have one hand on the handlebar and the other on the grip or trigger.
- Ensure that you have firm footing before starting to saw.
- Stand to the side of the cutting path of the chain saw.
- Position yourself so you are not near the cutting attachment when the chain saw is running.
- Know where the bar tip is at all times.
- Install a safety tip that covers the nose of the guide bar on the saw to prevent contact with the kickback zone. The tip must be removed for making bore cuts (pocket cuts) or for cutting wood thicker than the length of the guide bar.
- Wear any required personal protective equipment.
- Follow all safe use precautions when using chainsaws.



DO NOT

- Do not stand directly behind the saw.
- Do not cut in the kickback zone.
- Do not saw above shoulder height.

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