

MICHIGAN



MICHIGAN STATE UNIVERSITY: Prevention of work-related injuries & illnesses through research & investigation

WORK-RELATED AMPUTATIONS DUE TO POWER SAWS

Power saws are the most common cause of work-related amputations in Michigan. Other causes include power presses, meat slicers, and gears of pulley systems. Each year in Michigan, 75 workers suffer an amputation while using a portable or stationary power saw. These amputations are more serious than those caused by other sources. Loss of multiple fingers is nearly twice as likely when a power saw is the cause. While most work-related amputations involve the very tip of the finger, when power saws are involved, workers are more than twice as likely to lose an entire finger. Nearly all (97%) of workers sustaining amputations from power saws are male with an average age of 40 (range 17-79). Power saws are the most problematic in the Construction industry where they cause 38% of that sector's amputations.

SOME EXAMPLES OF WORK-RELATED AMPUTATIONS CAUSED BY POWER SAWS IN MICHIGAN:

- A 34 year old male got his glove caught in a power saw blade. The saw amputated his entire middle and ring fingers and cut through the bones of his index and little fingers.
- A 58 year old male was using a chop saw when the blade became stuck. He bumped the blade with his hand to reactivate it. Once activated, the saw pulled his hand in resulting in a near complete amputation of all five fingers where they join the hand.
- A 48 year old male was working in a lumber yard and lost control while using a large power saw. His hand was caught under the saw and his entire hand was amputated at the wrist. In a subsequent inspection of the worksite, Michigan OSHA cited the company for failure to provide adequate training regarding potential hazards.
- A 24 year old male was using a power saw and sustained amputations of half his thumb and all of his four other fingers. Michigan OSHA cited the company for not having a hood guard that enclosed the portion of the blade above the table.

PREVENTING AMPUTATIONS DUE TO POWER SAWS IN THE WORKPLACE:

- Use equipment only when guards are in place and in working order.
- Never look away from your work during power saw operation.
- When using a power saw, do not wear loose clothing. Long hair should be tied back and kept under a hat. Do not wear jewelry, such as chains, watches, or rings.
- Secure stock to the extent possible.
- Let the saw reach full speed before cutting and support the work firmly so it won't shift.
- Use a blade of appropriate size and type for the job and operate the saw at the appropriate speed.
- Keep work areas clean and uncluttered to allow for solid footing.
- Unplug a power saw before changing the blade.

RESOURCES

DID YOU KNOW?

- Power saws are noisy – noise levels can reach 110 decibels – and can cause hearing loss. Wear hearing protection when using a power saw.
- To prevent kickback, keep power saw blades clean, sharp, and oiled (if manufacturer requires). In addition, use stock-appropriate safeguards such as spreaders, anti-kickback fingers, and gauge or rip fences.

List of OSHA Regulations for Woodworking Machinery Saws
<http://www.cdc.gov/niosh/docs/2004-101/chklists/n47mac~1.htm>

MIOSHA Safety Standards for Woodworking Machinery
http://www.michigan.gov/documents/lara/lara_miosha_GL_27_3-08-2013_416871_7.pdf

Center for Construction Research and Training – Toolbox Talk
http://www.cpwr.com/sites/default/files/publications/CPWR_Power_Saws_0.pdf

OSHA Machine Guarding e-Tool: Saws
<https://www.osha.gov/SLTC/etools/machineguarding/saws.html>

