

Tree Wounds

By: Kelly Feehan, Extension Educator

Release: Week of September 30, 2024

With an increase in storm damage to trees this year, wounds are more common. When a tree has an open wound or is pruned, I'm asked what needs to be done to the wound or cavity and the answer is usually nothing. This is true even if the wood within the wound is moist, dark and soft.

While we may treat our scrapes and scratches with antibiotics and cover them with bandages, similar treatment for tree wounds, whether from pruning, storm damage or something else, can do more harm than good.

Also, filling the cavity of larger wounds with something like cement will not stop decay from spreading. It could increase the risk of decay. And there is little data supporting that filled cavities give trees more stability.

Like all living organisms, trees have natural mechanisms for responding to wounds or fighting off attack by insects and diseases. Research has shown treating wounds with dressings and paints or covering them interferes with this response.

When a tree is wounded, it responds by sealing the wound with chemical barrier zones and then physical compartmentalization. The wound never heals. Knots in lumber are wounds that were compartmentalized and the barrier zones worked.

Wounds expose the inside of a tree to organisms, primarily bacteria and fungi that may cause wood to discolor and decay. Callus tissue, or wound wood, develops to close off the wound from the outside. Barrier zones develop internally to stop or limit the progress of decay within a tree.

If a tree is fast and effective with natural wound response, the infection remains localized and does not spread. If not effective, the infection will spread. Most vigorous or actively growing trees are fairly successful at wound response.

Younger trees and healthy, unstressed trees respond faster than older or stressed trees. The best way to prevent infection or decay in trees is to use practices that promote healthy growth, make proper pruning cuts and avoid mechanical wounds such as from lawn mowers or weed trimmers.

If a tree is wounded and the bark or wood appears jagged, loose bark and ragged edges should be removed with a sharp knife. When doing this, do not remove any healthy bark so more live tissue is exposed. Otherwise, let the tree deal with the wound.

The reasons wound dressings are not recommended is they prevent drying and encourage fungal growth; interfere with wound wood formation; inhibit compartmentalization, and may serve as a food source for pathogens.

While pruning causes a wound, it is important to prune trees to prevent weak branch development and to remove dead or damaged wood. Learn how to make correct pruning cuts or hire a professional arborist to prune trees. Aim to prune during late winter or early spring when trees will have a better wound response.

To reduce stress and promote growth, provide a deep watering of 12 to 18 inches during dry periods and use a six-foot diameter ring of organic mulch such as wood chips, 3 to 4 inches deep, around the tree. Avoid fertilizing trees growing in or near a fertilized lawn or they are likely to be overfertilized.

If a tree has a wound or cavity that is not closing, monitor the tree for signs of decline such as off-color leaves or dead twigs and branches. This could be a sign decay is spreading within the tree and an arborist needs to inspect the tree to determine if removal is needed.