First Aid for Storm-Damaged Trees

In the aftermath of a severe ice or wind storm, many homeowners ask a simple question about their trees: Will they survive? That question arises from the initial impulse to "get this mess cleaned up." But hasty decisions can often result in removing trees that could have been saved. Follow these simple guidelines in administering first aid to your trees after a storm.

Be patient

Any medical first-responder will tell you that Rule No. 1 is to stay calm. Doing the right things right can make the difference between giving your trees a good chance of survival and losing them unnecessarily.

City officials, utility workers and private tree-care firms must focus first on dealing with hazards to life and property. After that, one of the city's major tasks is the removal of storm debris, damaged branches and sometimes entire trees. Homeowners should be aware that a tree between the street and sidewalk is typically city-owned and is the city's responsibility.

Trees are amazingly resilient and many recover with proper care and time. Despite the urge to do something immediately, try to be patient. As long as a damaged tree does not pose an immediate physical risk, the advice is simple: If you're unsure about its condition, keep the tree for now.

Be safe

First aid measures for trees after a major storm almost always involve the use of chain saws. Pruning and removing limbs from storm-damaged trees *is not* the same as cutting firewood from a treetop already on the ground. Branches and trees that are twisted and bent are usually under tremendous strain that is undetectable to the untrained eye. The quick release of that stored energy by cutting with a chain saw can have unpredictable and dangerous results. For safety's

Figure 1. The nearest trees on the right in this Buffalo, Mo., neighborhood will need to be replaced, but those in the background will survive with proper care.
Photo credit: Mike Van Beck, MU Landscape Services

sake, bent trees and branches larger than 6 inches in diameter should be removed by someone with more experience than the weekend woodcutter.

Look up and look down. Be alert for hanging branches that look like they're ready to fall. Stay away from downed utility lines. Low-voltage telephone or cable lines and even fence wires can become electrically charged when near fallen or broken electrical lines.

If you decide to administer first aid using a chain saw, before pulling the starter rope read MU Extension publications G1958, *Felling, Bucking and Limbing Trees,* for the basics of felling a tree, and G1959, *Basic Chain Saw Safety and Use*, for safety reminders that should be followed each time you pick up a chain saw.

Don't be a victim of a scam

Whatever professional help you seek, make your decision wisely, as it will have long-term consequences for your trees. Again, be patient.

During large-scale disasters, using a local professional may not be practical. However, do not be pressured into hiring people with chain saws who knock on your door offering to remove or "repair" your trees. Unfortunately, many such individuals have little or no training, and some have little interest in removing anything but money from the pocketbooks of unsuspecting residents.

However, in a widespread disaster, arborists from around the country may travel to the area to help aid in recovery. In this case, professional arborists may very well be knocking on doors as they participate in coordinated efforts to canvas large areas. Follow these guidelines to determine the qualifications of the person knocking on your door:

- If possible, determine if they are part of an established business in the community or nearby area. If they are from out of town, look on the side of the truck for a company name and location. Then, in either case, check for a phone listing, usually under Tree Service.
- Ask for current certificates of insurance showing that they are fully insured for property damage, personal liability and worker compensation. Call the insurer for verification.
- Ideally, the company should on staff a member of a professional association such as the International Society of Arboriculture (ISA), National Arborist Association (NAA) or American Society of Consulting Arborists (ASCA). Certified arborists are trained and have access to current technical information on tree care, repair and removal.

Assess the damage

Before writing off a damaged tree as a goner, ask yourself the following questions:

Other than the storm damage, is the tree basically healthy and vigorous? If the tree is basically healthy, is not creating a hazard, and did not suffer major structural damage, it will generally recover if first aid measures are applied.

Are major limbs broken? The larger a broken limb is, the harder it will be for the tree to recover from the damage. If a majority of the main branches are gone, the tree may have little chance of surviving.

Has the leader (the main upward-trending branch on most trees) been lost? In species where a leader is important to upward growth or desirable appearance, this may have to be a judgment call. The tree may live without its leader but, at best, would be a stunted or deformed version of the original.

Is at least 50 percent of the tree's crown (branches) still intact? This is a good rule of thumb on tree survivability. A tree with less than half of its branches remaining may not be able to produce enough foliage to nourish the tree through the coming growing season.

How big are the wounds where branches have been broken or bark has been damaged? The larger the wound is in relation to the size of the limb, the less likely it is to heal, leaving the tree vulnerable to disease and pests. A 2- to 3-inch wound on a 12-inch diameter limb will seal over with new bark within a couple of years.

Are there remaining branches that can form a new branch structure? The remaining limbs will grow more vigorously as the tree tries to replace its missing foliage. Check if branches are in place that can eventually fill out the tree's appearance.

Is the tree of a desirable species for its location? The best decision may be to remove the tree if the tree is not only seriously damaged but also is in the wrong location, such as a potentially tall tree beneath a power line, or is an undesirable species for the property, such as messy fruit.

Make a decision

The questions listed above will help you make informed decisions about your trees. In general, the decision about a particular tree will fall into one of three categories.

1. Keep it

If damage is relatively slight, prune the broken branches, repair torn bark or rough edges around wounds, and let the tree begin the process of wound repair.

A mature shade tree can usually survive the loss of one major limb. The broken branch should be pruned back to the trunk. In the following months, large wounds should be monitored closely for signs of decay.

Figure 2. Although this tree has been damaged, enough strong limbs may remain on a basically healthy tree to make saving it possible.

Young trees can sustain quite a bit of damage and still recover quickly. If the leader is intact and the structure for future branching remains, remove the broken branches and let the tree close over the wounds and recover itself.

2. Wait and see

Resist the temptation to simply cut down the tree and be done with it. Wait a while and think it over. Remember, time is on your side. Carefully prune broken branches. Then, give the tree some time to recover. You can make a final decision later.

Also resist the temptation to prune too heavily. The tree will need all the foliage it can produce to survive

Figure 3. A healthy mature tree can recover even when several major limbs are damaged.

the next growing season. Remove only the damaged limbs, then wait and see how the tree does. For large trees, a professional arborist should be brought in to assess damage on a borderline situation and to safely accomplish needed pruning and branch removal.

3. Replace it

Some trees simply can't be saved or are not worth saving. If the tree has already been weakened by disease, the trunk is split, or more than 50 percent of the crown is gone, the tree has lost its survival edge (Figures 4, 5 and 6).

Figure 5. About all that's left of this tree is its trunk. The few remaining branches can't provide enough foliage to enable the tree survive another growing season.

Figure 4. This otherwise healthy young tree has lost too much of its crown. It will probably not be able to grow enough new branches and leaves to provide needed nourishment, and it will never be able to regain its former beautiful shape.

Figure 6. A rotten inner core in the trunk or structural weakness in branching patterns can cause a split trunk — the tree equivalent of a heart attack. The wounds are too large to ever mend, and the tree has lost its sap lifeline between roots and leaves. This tree is all but dead.

Basic tree first aid you can provide

Resist the urge to overprune

Don't worry if the tree's appearance isn't perfect. With branches gone, trees may look unbalanced or naked. You'll be surprised at how fast they will heal, grow new foliage and return to their natural beauty.

Remove any broken branches still attached to the tree

Removing the jagged remains of smaller broken limbs is a common repair property owners can make after a storm. Done properly, it will minimize the risk of decay agents entering the wound. Prune smaller branches at the point where they join larger ones. Cut large broken branches back to the trunk or a main limb. As you prune, make clean cuts in the sequence shown in Figure 7 to help the tree to recover faster.
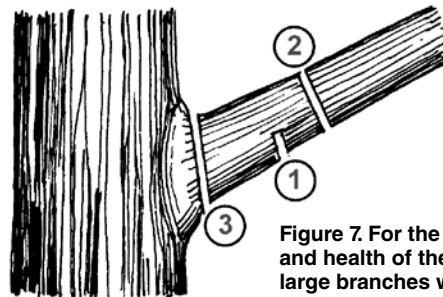

Figure 7. For the appearance and health of the tree, prune large branches with this sequence of cuts.

Repair torn bark

To improve the tree's appearance and eliminate hiding places for insects, carefully use a sharp chisel or knife to smooth the ragged edges of wounds where bark has been torn away (Figure 8). Try not to expose any more of the cambium (greenish inner bark) than necessary because these fragile layers contain the tree's food and water lifelines between roots and leaves.
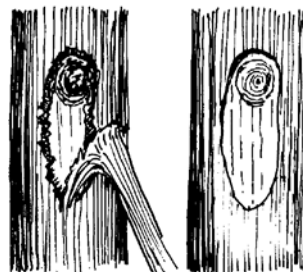

Figure 8. Avoid tearing the bark when pruning. Clean ragged wounds in the bark to avoid further damage.

Don't top your trees!

Untrained individuals may urge you to cut back all of the tree's branches in the mistaken belief that reducing the length of branches will help avoid breakage in future storms. Although storm damage may not allow for ideal pruning cuts, professional arborists say that "topping" — cutting main branches back to stubs — is one of the worst things you can do to a tree. Stubs tend to grow back many weakly attached branches that are even more likely to break when a storm strikes.

Figure 9. Give storm-damaged trees the chance to repair themselves: Don't top them.

Also, the tree will need all its resources to recover from the stress of storm damage. Topping the tree would reduce the amount of foliage, on which the tree depends for the food and nourishment needed for regrowth. A topped tree that has already sustained major storm damage is more likely to die than repair itself. At best, its recovery will be retarded, and it will almost never regain its original shape or beauty.

Also from MU Extension Publications

G1958 *Felling, Bucking and Limbing Trees*
G1958 *Basic Chain Saw Safety and Use*
G6866 *Pruning and Care of Shade Trees*

extension.missouri.edu
1-800-292-0969

For further information

Missouri Department of Conservation, *mdc.mo.gov*

F00071 *Basic Pruning Guidelines*