



# INTRODUCTION TO TREE PRUNING

## A tree may need pruning for a variety of reasons:

- to remove diseased or storm-damaged branches
- to thin the crown to permit new growth and better air circulation
- to reduce the height of a tree
- to remove obstructing lower branches
- to shape a tree for design purposes

Once the decision has been made to prune, your next decision is whether or not to tackle the job yourself. In the case of a large tree where you want to remove big branches in the upper area of the crown, it may be best to hire experts. Large tree pruning, in particular, can require climbing and heavy saws or even cherry-pickers and chain saws. This is a job that should be left to trained and experienced professionals. Never compromise personal safety in pruning a tree.

## How To Prune

Targeting a Pruning Cut Large trees aside, there are many pruning jobs that you can do on your own. In all cases, the key is to prune the unwanted branch while protecting the stem or trunk wood of the tree. Tree branches grow from stems at nodes and pruning always takes place on the branch side of a stem-branch node. Branches and stems are separated by a lip of tissue called a stem collar which grows out from the stem at the base of the branch. All pruning cuts should be made on the branch side of this stem collar. This protects the stem and the other branches that might be growing from it. It also allows the tree to heal more effectively after the prune. To prevent tearing of the bark and stem wood, particularly in the case of larger branches, use the following procedure:

### Three steps to pruning large branches.

1. Make a small wedge shaped cut on the underside of the branch just on the branch side of the stem collar. This will break the bark at that point and prevent a tear from running along the bark and stem tissue.
2. Somewhat farther along the branch, starting at the top of the branch, cut all the way through the branch leaving a stub end.
3. Finally, make a third cut parallel to and just on the branch side of the of the stem collar to reduce the length of the stub as much as possible.

A similar procedure is used in pruning one of two branches (or one large branch and a stem) joined together in a 'u' or 'v' crotch. This is known as a drop crotch cut. Make the first notch cut on the underside of the branch you're pruning well up from the crotch. For the second cut, cut completely through the branch from inside the crotch well up from the ridge of bark joining the two branches. Finally, to shorten the remaining stub, make the third cut just to one side of the branch bark ridge and roughly parallel to it.



## When To Prune

The dormant season, late fall or winter, is the best time to prune although dead branches can and should be removed at any time. Pruning during the dormant period minimizes sap loss and subsequent stress to the tree. It also minimizes the risk of fungus infection or insect infestation as both fungi and insects are likely to be in dormancy at the same time as the tree. Finally, in the case of deciduous trees, pruning when the leaves are off will give you a better idea of how your pruning will affect the shape of the tree.

## How Much To Prune

Do not prune more than 25% of a tree's branches. When deciding how much to prune a tree, as little as possible is often the best rule of thumb. All prunes place stress on a tree and increase its vulnerability to disease and insects. On no account, prune more than 25% of the crown and ensure that living branches compose at least 2/3 of the height of the tree. Pruning more risks fatally damaging your tree. In some cases, storm damage, height reduction to avoid crowding utility lines or even raising the crown to meet municipal bylaws, your pruning choices are made for you. But even in these instances, prune as little as you can get away with.

## Pruning Tools

Advice regarding tools is pretty straight-forward. Buy the best tools you can afford and keep them in good condition.

### Bypass Pruner

Bypass garden pruners are probably the most popular. They make a nice clean cut using two curved blades that bypass each other in the same manner as a pair of scissors. One blade is sharpened on the outside edge and it slips by a thicker unsharpened blade.

### Pole Pruner & Lopper

A versatile pole pruner that can be attached to any standard-thread extension pole. Includes 14-inch pruning saw blade and 1-inch lopper.

### Folding Pruner

A versatile, folding pruning saw that can be attached to any universal extension pole for long reach. Lightweight and robust.

After each tree you prune, remember to disinfect your pruning tools in a solution of 1 part bleach to 9 parts water followed by cleaning with soapy water and then drying. Tree diseases are easily spread by infected tools. Finally, if you're not skilled in the use of tools like chain saws or if the pruning job is more than you're capable of managing, hire an expert. Safety first.