

# Girdling Root

Girdling root is defined as a root that grows around the trunk of a tree, thus tending to strangle the tree. The result is that the flow of food from leaf to root is cut off. This in turn kills the roots, which fail to absorb water for branches and their leaves.



Girdling root because the tree was planted too deep

Girdling roots most commonly occur in Norway maples that are 20 to 25 years old. It is, however, common in other urban trees such as linden, magnolias and pines. The affected tree's leaves will become stunted and pale in color. Each year, sections of the tree's canopy will die back, eventually resulting in the tree's death.

There can be a number of reasons trees develop girdling root; one may be because the tree had been growing in a container for too long and the roots continued to grow in a circular pattern even after being planted. Another reason could be

because when trees are dug to be put into burlap (B&B), the roots will grow adventitious roots, which eventually become the girdling root(s). A third possibility is because the tree was planted too deep.

Once the later stages of the disorder are reached, girdling roots are often at an advanced stage and little can be done for the tree. If the problem is detected early, successful removal of the offending root may remedy the problem. A chain saw or hand saw cut to sever the offending root may save the tree. There may be more than one root that needs to be removed. You must dig around the base of the tree to find these girdling roots.

Girdling roots can be prevented at the time of planting. If planting a tree grown in a container, use a sharp knife and cut three to five times through the sides of the root ball. This will encourage the roots to grow outward instead of in a circular pattern. If the tree is larger and B&B, remove the wire basket and the burlap. If you do not see the root flare on either a B&B or container grown tree, dig down in the soil until you do see it. Plant the tree at that level.



**Left:** Tree planted too deep. (looks like a telephone pole in the ground)  
**Right:** Properly planted tree notice the root flare.



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