

***How do I know if my tree is going to fall over in the wind or in a storm?***

One of the most common causes of trees coming down in storms and high winds is root-rot, heart (trunk) rot or an associated fungal disease that is far progressed. Fungus is the primary cause of rot as fungus is Mother Natures recycling agents when organisms such as trees have died or are in decline.

Often there are above-ground signs of the progression of root rot. Below are photos of a root-system compromised by root-rot and likely to come down in the next serious storm:





Sometimes root or heart-rot is not as obvious in cases where the majority of the damage is below ground level. However, there are other symptoms of the progression of fungal rot.

Below are photos of fungal systems have begun recycling (rotting) your tree:



Above, we see Ganoderma fungal bodies at the base of this tree, signifying that this tree is in decline and it's integrity has been compromised by the progression of fungus.



Above, we see fungal bodies growing on an open wound in an Elm tree and the fungal system extends far down into this branch and ultimately into the heart of the tree. As the fungus spreads through the dead tissue of the heart-wood, it weakens the wood and results in time in a weak, hollow tree, poised to come down in winds or in a storm. Air-born fungal spores land on open wounds, and adhere to the wood when there is moisture, and the moist wood is perfect nutrition for the fungus to begin developing and recycling the tree. This is the very reason that cutting tools need to be sterilized before surgery begins, and that wounds need to be sealed; to keep the elements such as these pathogens out of your trees! Sometimes no evidence of fungus can be seen on or in the tree; at least not at casual inspection. Below is another variety of fungus at work in your tree which requires a trained eye or close inspection:



You will see above, in the grooves between the textured bark, that there are tiny, black, fruiting bodies of fungus at work. This is a sign of heart-rot.



In the photo above, of the same tree and fungal system, the point of the knife blade points to the tiny fruiting bodies of the fungus.

In the photo below, we see the fruiting bodies of still another type of fungus which is not at work on the tree (yet) however are already at work on the trees' root system; near the base of the tree; some of which trees' root system is just below the ground:



**The fruiting bodies of the fungal system shown above were found in the grass near the base of the tree. If your tree is showing signs of stress, loss of vitality; perhaps an abundance of dead wood or simply that the leaves and canopy seem to be thin; where fungal-rot is the cause; it may only be evidenced by “mushrooms” on the ground near the tree.**



**Above is a close-up photo of the same fungal system at work on the root system of a tree near the base of the tree.**

***What causes fungus to take hold in my tree?***

**Fungal spores are always present in the air, soil and environment. They will only thrive, however, in the presence of moisture, (relative) warmth, and lack of ultra-violet light (sunlight).**

**Fungal spores can be carried on the wind, by insects, animals, tools, equipment, or may simply be lying dormant in the soil, waiting for the proper conditions to come to life.**