## Common Diseases and Treatments

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<th>PEST</th>
<th>TREE SPECIES AFFECTED</th>
<th>WHAT IS IT?</th>
<th>PREVENTION</th>
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| Anthracnose| ashes, oaks, maples, basswood, dogwoods    | A fungal disease causing discolouration of leaves and possibly defoliation. Anthracnose does not cause permanent damage, but can weaken the tree. | Do not overhead water, i.e. water with sprinkler; ensure adequate air circulation around leaves and stems; plant in well-drained soil and mulch and water in dry conditions | Rake up leaves and prune out dead and dying branches, a source for re-infection in the following season and remove from site; can be included with city-collected yard waste | University of Minnesota Extension  
City of Toronto (ash, oak, and sycamore anthracnose) |
| Blight Diseases | serviceberry, basswood, pines | A fungal or bacterial disease affecting flowers, leaves, and shoots causing young growth to turn black or brown and curl up. | Avoid overfeeding and severe pruning                                                              | • In summer, remove limbs, cutting well outside infected area (6-12) and dispose  
• For severely infected trees, contact a certified arborist                                      | City of Toronto (fire blight, eastern filbert blight)  
Tree Canada (chestnut blight)  
City of Vaughan (Diplodia tip blight) |
| Canker     | cherries, ashes, redbud, white pine, oaks, maples, basswood, spruce | Fungal diseases where the infected wood swells and cracks open. A thickened callus may form around the infected area. Can cause branch dieback. | • Avoid wounding trees  
• Protect trunks from sunscald  
• Prevent drought and flooding                                                                  | • Remove cankerous tissue in dry weather and prune away infected areas  
• Make sure to clean tools between cuts to prevent spread of disease                              | Cornell University                                                                                          |
<p>| Downey Mildew | viburnums                               | A fungal disease visible by a lightly coloured growth on underside of leaf and angular spots of dead tissue between leaf veins | Avoid overhead irrigation in spring                                                               | Rake leaves in autumn and remove from site                                                     | Pennsylvania State University Extension                                                |</p>
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| Galls        | maples, oaks, cherries, basswood | Certain bacteria, fungi, insects, and viruses induce the development of swollen plant tissue. Severely infected leaves are distorted. | Attract predatory birds and other beneficial organisms to your yard - these will depend on which insect or mite is causing the problem | • The majority of galls are cosmetic in nature and do not cause significant damage to the tree - tolerate them, don’t spray  
• Determine which type of gall to determine action  
• For oaks and pines, prune out and destroy galls when they occur | City of Toronto |
| Needlecast   | pines and spruces     | A fungal disease of conifers. Most trees recover the following year, producing new, healthy growth. | • Plant trees where there is good air circulation  
• Protect young trees from winter frost and winds | • Prune off damaged tips  
• Rake up dropped needles and remove from site | Pennsylvania State University Extension |
| Powdery Mildew | hackberry, serviceberry, viburnums, oaks, maples, tulip tree | A fungal disease which leaves a powdery covering on infected leaves. Many fungi cause this disease most can only infect one or a few plant species. | Provide good soil drainage and air circulation | • Spray with garlic spray  
• Remove plant parts that show symptoms and dispose | City of Toronto |
<p>| Sooty Mold   | tulip tree, nannyberry, maple, alder, birch, dogwood, basswood | This is not a pathogen, but merely fungal growth on honeydew secreted by aphids higher up on tree which has dripped onto the lower leaves | | Control aphids with mild soap spray | University of California |</p>
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| Wilt | maples, redbud, oaks  | A fungal tree disease which plugs the water conducting vessels and greatly reduces the flow of water up the stem of the tree. | • Provide adequate watering and composting  
• Do not plant another tree of same species in the infected soil | • Prune out diseased branches  
• Feed diseased tree with a high nitrogen fertilizer like bone meal  
• Where there are multiple trees of same species in close proximity and one is infected, contact a certified arborist to control spread of disease | City of Toronto:  
Verticillium wilt  
Oak wilt |
| Fire Blight | serviceberry | Sudden wilting an death of branch tips. Bark appears shriveled and blossoms wilt, turn black, and hang on the twig. | Do not fertilize with high nitrogen fertilizer | • Prune out and remove infected woods  
• Disinfect tools between cuts | City of Toronto |
| Leaf Spot | serviceberry, tulip tree, ashes, hackberry | General term for fungal diseases caused by a number of different pathogens for which spotting on leaves is the predominate symptom. Anthranose and tar spot are examples of leaf spot disease. | • Do not overhead water - use a hose, not a sprinkler; reduce humidity between plants by providing adequate space between plants and by pruning lower branches  
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• Use mulch under trees | Remove and dispose of spotted leaves on plants that have fallen | Missouri Botanical Garden |
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<td>Leaf Blister</td>
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<td>A fungal disease of oaks that appears as yellow-white blisters up to 1/2” in diameter on upper leaf surface, with corresponding yellowish brown depression on leaf undersides. Numerous spots will cause leaf to fall prematurely, but does not seriously affect tree health.</td>
<td>Maintain plant vigour</td>
<td>Collect fallen leaves and remove from site</td>
<td>Natural Resources Canada</td>
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| Rust Diseases   | ashes, oaks, serviceberries, pines | A fungal disease that causes leaves to become distorted and twigs to swell. Powdery yellow-orange spots may be present on undersides of leaves. Life cycle of fungus requires evergreens as alternative host. | Do not plant both hosts near each other, i.e. do not plant serviceberry near juniper | ● Keep tree well watered and increase soil organic matter  
● Rake up leaves and fallen branches in fall and remove from site  
● Hand pick or prune out galls on evergreens before they swell | City of Toronto (pear trellis rust)  
University of Maryland Extension (cedar-apple rust, quince rust, hawthorn rust) |