



THE EHS CONNECTION

ENVIRONMENTAL HEALTH & SAFETY NEWSLETTER—MAY 2016

LAWN MOWER SAFETY

Like many homeowners, you may use a lawn mower to help maintain your property. Lawn mowers are helpful tools, but they can also be very dangerous. Each year, many thousands of people suffer deep cuts, loss of fingers and toes, crushed and broken bones, burns, and other injuries due to improper or careless use of lawn mowers.

Lawn mowers are very powerful tools, and lawn mower injuries account for a large percentage of accidental partial or complete amputations. The energy transferred by a typical lawn mower blade is equivalent to being shot in the hand with a .357 Magnum pistol. The speed of the blade can send dirt and bacteria deep into a wound, creating a high risk for severe infection. In addition, a lawn mower can eject a piece of metal or wood up to 100 miles per hour.

In 2010, 253,000 people were treated for lawn mower-related injuries, according to the U.S. Consumer Product Safety Commission. Children under age 19 account for nearly 17,000 of these injuries. The number of lawn mower-related injuries increased 3 percent since 2009.

Most lawn mower injuries can be prevented if you concentrate on your task and use common sense. Here are some basic tips for staying safe.

Maintain Your Lawnmower

- Keep lawn mowers in good working order. When using a lawn mower for the first time in a season, have it serviced to ensure that it is working correctly.
- Be sure the motor is off before inspecting or repairing lawn mower equipment.
- Use a stick or broom handle (not your hands or feet) to remove debris in lawnmowers.

Operate Your Lawnmower Properly

- Read the instruction manual before using a lawnmower.
- Do not remove safety devices, shields, or guards on switches.
- Add fuel before starting the engine, not when it is running or hot.
- Do not leave a lawn mower unattended when it is running. If you must walk away from the machine, shut off the engine.
- Stay away from the engine cowling, as it can become very hot and burn unprotected flesh.

Use Caution

- Wear protective gloves, goggles, sturdy shoes, and long pants when you use lawn mowers. Never mow barefoot, or in sandals or flip flops.
- Do not drink alcoholic beverages before operating a lawn mower.
- Hands and feet should never be used to touch the lawn mower blade under any circumstances, even if the engine is off. If there is debris obstructing the blade, once you clear it, the blade can quickly swing around and cause serious injury.

Keep Children Safe

- Teach children to stay away from all running lawn mowers.
- Children should not be allowed to play in or near where a lawn mower is being used.
- Never allow a child or another passenger to ride on a mower, even with parents. Doctors commonly see children with severe injuries to their feet caused by riding on the back of a rider mower with a parent or grandparent.
- Children should be at least 12 years of age before operating a push lawn mower, and age 16 to operate a riding lawn mower.

Consider the Terrain

- Remove stones, toys and other objects from the lawn before you start mowing.
- Use caution when mowing hills and slopes. Mow across slopes with a push mower to avoid pulling the mower over your feet if you happen to slip. Mow up and down slopes with a riding mower to prevent the mower from tipping over. Do not cut wet grass.

WATER POLLUTANTS OF CONCERN

Storm water runoff from impervious surfaces carries large amounts of various pollutants to the surface waters of the United States. These pollutants include nutrients, silt/sediment, pathogens, oil/grease, metals, debris and litter. Of particular concern to water bodies are phosphorus and sediment.

PHOSPHORUS (AND OTHER NUTRIENTS)

Phosphorus is the nutrient of greatest concern because it promotes weed and algae growth in lakes and streams. Excessive weed growth clogs waterways and blocks sunlight. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels. Some sources of nutrients are fertilizer, excrement and detergents.

SILT AND SEDIMENT

Large amounts of silt and sediment, when dislodged and swept by storm water into water bodies, can disrupt ecosystems in a number of ways. Storm water runoff that contains sediment can deposit harmful amounts of silt in sensitive areas such as wetlands, wildlife preserves, and stream and lake bottoms harming habitat needed by aquatic insects and plants. Sediment blocks sunlight needed by aquatic plants to grow. Sediments can carry toxic chemicals that cause the oxygen in water to be used up. Sediment generally is the result of soil erosion from lawns, hillsides and gardening/landscaping activities.

TOXIC SUBSTANCES (GASOLINE, HOUSEHOLD PRODUCTS AND PAINT THINNER)

Toxic substances may enter surface waters either dissolved in runoff or attached to sediment or organic materials. The principal concerns in surface water are their entry into the food chain, bioaccumulation, toxic effect on fish, wildlife and microorganisms, habitat degradation, and potential degradation of public water supply sources. Some toxic substances that may be present in residential areas, businesses and construction sites are listed below:

- Residential: Pet waste, vehicle fluids (oil, gas and antifreeze) paint, pesticides, solvents, batteries, hazardous wastes, street litter, soap from car washing and swimming pool discharges.
- Businesses: Fuel, soap from equipment washing, waste process water and hazardous liquids.
- Construction: Sediment, wash water from concrete mixers, used oil and solvents, vehicle fuels and pesticides.

PATHOGENS (BACTERIA, VIRUSES)

Bacteria and viruses include infectious agents and disease producing organisms normally associated with human and animal wastes, leakage from sewers and seepage from septic tanks. These organisms can cause disease in humans and animals when present in drinking water and contact recreation water bodies. Biological contaminants come from litter, organic matter and animal waste.

OXYGEN-DEMANDING ORGANICS (HUMAN AND ANIMAL EXCRETA; DECAYING PLANT, ANIMAL MATTER; DISCARDED LITTER, FOOD WASTES)

Organic materials (natural or synthetic) may enter surface waters dissolved, or suspended, in runoff. Natural decomposition of these materials may deplete dissolved oxygen supplies in the surface waters. Dissolved oxygen (DO) may be reduced below the threshold necessary to maintain aquatic life, impairing or killing fish and other aquatic plant and animals.

METALS (LEAD, MERCURY, COPPER AND CADMIUM)

Metals in water can be toxic to humans, aquatic life and other animals that drink water. Metals come from vehicle exhaust, weathered paint, metal plating, tires and motor oil.

OIL AND GREASE (PETROLEUM PRODUCTS)

Oil and grease may be toxic to aquatic life, even in small amounts. Oil and grease in storm drains can generally be traced to automotive leaks and spills or improper disposal of used oil and automotive products into storm drains.

THERMAL STRESS (SUNLIGHT)

Direct exposure of sunlight to urban streams which lack shade may elevate stream temperatures, which can exceed fish tolerance limits, reduce survival and lower resistance to disease. Urban street surfaces and other impervious surface areas which have been heated by sunlight may transport thermal energy to a stream during a storm event adding stress to biota. Cold water fish (such as trout) may be eliminated, or the habitat may become marginally supportive of the fishery.

FLOATABLES (LITTER)

Floating litter in water may be contaminated with toxic chemicals and bacteria, are unattractive to look at, and can cause death to aquatic animals and birds. Commonly observed floatables include cigarette butts, plastic containers, wrappers and cans. Floatables are generally the result of careless handling or littering.

From CNY Stormwater Coalition

OSWEGO COUNTY RESIDENTS CAN GET RID OF OLD TIRES AT NO CHARGE

Oswego County residents can get rid of old tires at the county solid waste transfer stations between 8 a.m. and noon Saturday, May 9, and Saturday, Aug. 15. The days have been designated as Tire Amnesty Days in Oswego County to allow residents to safely dispose of unwanted tires and reduce mosquito-breeding habitats. The normal tire fee will be waived.

The events are sponsored by State Senator Patty Ritchie and the Oswego County Legislature.

The purpose of the program is to reduce the amount of waste tires and help prevent the spread of mosquitoes which can carry Eastern equine encephalitis (EEE) and other diseases. Sources of standing water, including tires, can become breeding grounds for mosquitoes.

"Most people don't realize that a single waste tire left outside can act as a breeding ground for more than one million mosquitoes," said Senator Ritchie.

Frank Visser, Oswego County Solid Waste Director, said the county will accept up to eight tires per vehicle at no charge to Oswego County residents. Additional tires will be accepted but they must be weighed in on the transfer station scales. There will be a \$10 minimum fee for additional tires. Tractor tires must be cut into quarters.

Oswego County transfer stations and recycling drop-off centers are located at Bristol Hill, 3125 NYS Route 3, Volney; 1167 County Route 7, Hannibal; 1391 U.S. Route 11, Hastings; 700 E. Seneca St., Oswego; and 100 County Route 2A, Pulaski.

For more information, call the Department of Solid Waste at 591-9200, or <http://www.oswegocounty.com/dsw/index.html>.

For more information on preventing the spread of EEE, West Nile, and other diseases carried by mosquitoes, visit http://www.health.ny.gov/diseases/west_nile_virus

EASTERN EQUINE ENCEPHALITIS VIRUS (EEEV) is transmitted to humans by the bite of an infected mosquito. Eastern equine encephalitis (EEE) is a rare illness in humans, and only a few cases are reported in the United States each year. Most cases occur in the Atlantic and Gulf Coast states. Most persons infected with EEEV have no apparent illness. Severe cases of EEE (involving encephalitis, an inflammation of the brain) begin with the sudden onset of headache, high fever, chills, and vomiting. The illness may then progress into disorientation, seizures, or coma. EEE is one of the most severe mosquito-transmitted diseases in the United States with approximately 33% mortality and significant brain damage in most survivors. There is no specific treatment for EEE; care is based on symptoms. You can reduce your risk of being infected with EEEV by using insect repellent, wearing protective clothing, and staying indoors while mosquitoes are most active. If you think you or a family member may have EEE, it is important to consult your healthcare provider for proper diagnosis.



ABOUT ZIKA VIRUS DISEASE

Zika virus disease (Zika) is a disease caused by the Zika virus, which is spread to people primarily through the bite of an infected *Aedes* species mosquito. The most common symptoms of Zika are fever, rash, joint pain, and conjunctivitis (red eyes). The illness is usually mild with symptoms lasting for several days to a week after being bitten by an infected mosquito. People usually don't get sick enough to go to the hospital, and they very rarely die of Zika. For this reason, many people might not realize they have been infected. However, Zika virus infection during pregnancy can cause a serious birth defect called microcephaly, as well as other severe fetal brain defects. Once a person has been infected, he or she is likely to be protected from future infections.

Zika virus was first discovered in 1947 and is named after the Zika Forest in Uganda. In 1952, the first human cases of Zika were detected and since then, outbreaks of Zika have been reported in tropical Africa, Southeast Asia, and the Pacific Islands. Zika outbreaks have probably occurred in many locations. Before 2007, at least 14 cases of Zika had been documented, although other cases were likely to have occurred and were not reported. Because the symptoms of Zika are similar to those of many other diseases, many cases may not have been recognized.

In May 2015, the Pan American Health Organization (PAHO) issued an alert regarding the first confirmed Zika virus infection in Brazil. On February 1, 2016, the World Health Organization (WHO) declared Zika virus a Public Health Emergency of International Concern (PHEIC). Local transmission has been reported in many other countries and territories. Zika virus will likely continue to spread to new areas.

Specific areas where Zika is spreading are often difficult to determine and are likely to change over time. If traveling, please visit the CDC Travelers' Health site for the most updated travel information.

CREATE AND PRACTICE A FIRE ESCAPE PLAN

In the event of a fire, remember that every second counts, so you and your family must always be prepared. Escape plans help you get out of your home quickly.

Twice each year, practice your home fire escape plan. Some tips to consider when preparing this plan include:

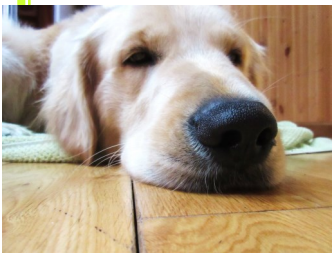
- Find two ways to get out of each room.
- If the primary way is blocked by fire or smoke, you will need a second way out. A secondary route might be a window onto a neighboring roof or a collapsible ladder for escape from upper story windows.
- Only purchase collapsible ladders evaluated by a nationally recognized laboratory, such as Underwriters Laboratory (UL).
- Make sure that windows are not stuck, screens can be taken out quickly, and that security bars can be properly opened.
- Practice feeling your way out of the house in the dark or with your eyes closed.
- Windows and doors with security bars must have quick release devices to allow them to be opened immediately in an emergency. Make sure everyone in the family understands and practices how to properly operate and open locked or barred doors and windows.
- Teach children not to hide from firefighters.

ERGONOMIC ASSESSMENT: CHRISTINE BODY HAS BEEN DOING ERGONOMIC ASSESSMENTS SINCE 1996 AND IS AVAILABLE TO DO THEM HERE ON CAMPUS. SHE CAN BE REACHED AT 312-2770 AND WOULD BE HAPPY TO ASSIST YOU WITH ANY QUESTIONS OR ISSUES.

MAY WORD SEARCH

For a chance to win a great prize (more like an OK prize, but-hey, it's a PRIZE!), complete the Word Search and send it via e-mail to lisa.drake@oswego.edu OR through Campus Mail: Lisa Drake, 110 Lee Hall. Make sure to put your name on it! The winner for April was Chris Dallas. Look for: Lawn Mower, Dangerous, Property, Injuries, Powerful, Amputations, Common Sense, Instruction Manual, Goggles, Gloves, Water Pollutants, Phosphorus, Silt, Sediment, Toxic Substances, Pathogens, Organics, Metals, Oil, Grease, Thermal Stress, Floatables, Tire Amnesty Days, Mosquito, Equine, Zika Virus, Microcephaly, Fire Escape Plan.

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CHECK YOUR PET'S COLLAR REGULARLY

Collars do not expand, but puppies and kittens grow quickly!

If not loosened, collars can literally grow right into your

pet's neck, creating an excruciating, constant pain. Check your pet's collars at least every week until it is full-grown (that can be more than a year for really large breeds of dog). You should be able to easily slip two or three fingers between the pet's collar and their neck.