

# **SafetyToolboxTalks**

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## **Downed Power Lines**

Power lines may come down as a result of windstorms, ice buildup, and motor vehicle accidents. You cannot tell if a downed power line is energized just by looking at it. There are no sparks or movement. Even if the line is not live one moment, automatic switching equipment may restore power to the line without warning. The protective covering on a power line is not insulation; it only protects the line from the weather. It won't protect you from electrical contact.

The electricity in a power line always seeks a path to the ground. This path might include a tree, a vehicle, or a fence. These objects then become energized. If you touch the energized line or object, the electricity can flow through your body. Keep away from any object that is in contact with a power line.

Once electricity reaches the ground, the ground itself becomes energized. This can happen if a broken power line falls to the ground or onto a vehicle or tree. The electricity then flows through the ground over a wide area, spreading out like ripples in a pool of water. The voltage in the ground is very high at the point of electrical contact. Farther away, the voltage drops off. With power lines of up to 60 kilovolts, the voltage drops to zero at about 33 feet. However, if the ground is wet, it will be more than that.

1. Treat downed power lines and anything in contact with them as energized. Stay far away from any downed line.
2. Call the power company immediately. A crew with proper training and equipment will arrive as soon as possible.
3. Wait for the power company representative to confirm that it is safe to approach the scene. Only the power company can confirm that the system has been de-energized and that power will not automatically be restored.