

## Wisconsin Reinsurance Corporation

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Subject: Arc Fault Circuit Interrupters

### Is Your Home Safe?

According to the American Red Cross, “fires kill more Americans each year than all natural disasters combined, affecting people from all backgrounds and geographical locations.” Unlike natural disasters, electrical fires ARE preventable. Smoke alarms, fire drills and fire extinguishers help save lives AFTER the fire occurs. But what can stop an electrical fire from happening?

#### What causes electrical fires ?



In the last thirty years, our homes have been dramatically transformed by electricity. Common causes of electrical fires are overburdened or stressed wires and cords, unknowingly damaged wires, worn or deteriorated electrical insulation, or wires or cords in contact with vibrating metal. When wires are overburdened, stressed, worn or damaged, the electrical current inside the wire, arcs and sparks causing intense heat. The temperatures of the arcs can exceed 10,000 degrees Fahrenheit easily igniting surrounding materials such as wood framing or insulation, causing a fire in areas of the home hidden from view or early detection.



#### What is an AFCI?

An Arc Fault Circuit Interrupter (AFCI) is a newly designed high tech circuit breaker that detects an arc or spark from a wire inside the wall and shuts off power, preventing a fire. AFCI's replace standard breakers in your electrical panel.



#### How can an AFCI protect my home?

Unlike a standard circuit breaker that detects only overloads and short circuits, AFCI's provide a higher level of protection by detecting hazardous arcing and shuts off electricity before a fire can start. The U.S. Consumer Product Safety Commission (CPSC) estimates that AFCI's could prevent more than 50 percent of the electrical fires occurring each year. Safety requirements in the National Electric Code (NEC) now include installation of AFCI's in bedroom, dining, living and family room circuits in newly constructed homes. However, older homes with aging wiring systems can also benefit from the added protection of AFCI's. Depending on the size of a given home, the additional cost for installing AFCI protection is \$140-\$350 according to the Electrical Safety Foundation International (ESFi). For more information and a video demonstration on AFCI's go to <http://www.afcिसafety.org>. Get your home protected today!

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#### Is Your Home Safe?

- What causes electrical fires?
- What is an AFCI?
- How can an AFCI protect my home?

#### Sources:

National Fire Protection Association  
[www.nfpa.org](http://www.nfpa.org)

Electrical Safety Foundation International  
[www.electrical-safety.org](http://www.electrical-safety.org)

National Electric Manufacturers Association  
[www.nema.org](http://www.nema.org)  
[www.afcисafety.org](http://www.afcисafety.org)

U.S. Fire Administration  
[www.usfa.fema.gov](http://www.usfa.fema.gov)

American Red Cross  
[www.redcross.org](http://www.redcross.org)

#### For more information, contact:

**Bobbie Stokke, CPCU, AIC  
ARe**

888-378-7744

[bstokke@thewrcgroup.com](mailto:bstokke@thewrcgroup.com)

# WRC<sup>®</sup>

2810 City View Drive  
Madison, WI 53718  
800.939.9473