EverGuard’s Forever Flex™ relining system is the solution for every chimney.

- **Furnaces and water heaters**
- **Wood stoves and pellet stoves**
- **Fireplaces**
  Forever Flex is a highly flexible pipe that can fit around the twists and turns of masonry chimneys.
- **Fireplace inserts**
  Forever Flex can be custom shaped to fit through tight damper spaces that exist in fireplace inserts. Wood and coal installations require insulation.

**FOREVER FLEX™**
Premium Chimney Liner with the Forever Warranty™
The Fireplace’s Flue
This flue is servicing a fireplace, wood stove, pellet stove or other solid fuel appliance. It may have undergone a chimney fire, or have been connected to an improperly vented appliance, misused wood stove, or exposed to excessive moisture. A damaged flue brings the dangers of fire and carbon monoxide poisoning.

- Cracked or missing tiles
- Eroded brick and mortar
- Excessive or glazed creosote
- Joint between flue tiles not sealed
- Flue tiles not aligned properly
- Improper chimney draft

The Furnace’s Flue
High-efficiency furnaces do not waste energy by sending heat up a chimney. As a result, temperatures in the flue drop low enough to produce condensation. This water combines with acids in the flue to create acidic moisture. Clay liners are particularly vulnerable to this acidic moisture assault.

- Flaking plaster and/or peeling wallpaper
- Staining on wall surfaces due to moisture
- Excessive moisture in gas or oil flues
- Excessive soot in oil furnace flues
- Chimney structure deteriorating
- Eroded or missing clay liner
- Carbon monoxide leaking into home
- Joint between flue tiles not sealed
Chimney Fire
Chimney fires happen when creosote builds up in the flue and ignites. These fires can rage at temperatures up to 2000 degrees and roar just inches away from your home. The intense heat alone can bring surrounding materials to the flash point, and ignite your home. Also, sparks from the fire can find their way through small cracks in the liner and quickly turn a chimney fire into a house fire.

In 2001, an estimated 18,300 reported home structure fires involving chimneys supporting solid-fueled equipment resulted in $48 million in direct property damage. (Source: NFPA)

Carbon Monoxide
Carbon monoxide (CO) is a colorless, odorless gas. Sometimes an early warning is flu-like symptoms, but CO can cause brain damage and death with no warning. A damaged furnace flue poses a real threat of carbon monoxide poisoning, because this gas can escape through the smallest crack. Also, a partial or complete collapse of the clay flue liner can block the flue, and quickly fill the house with deadly gas. Sadly this tragedy occurs in homes across the country every year.

In 2001, 656 people died of unintentional non-fire exposure to gases...and there have been more than 30,000 hospital emergency room injuries per year. (Source: NFPA)
Why is my chimney breaking down?
The primary culprit in chimney breakdown is the acidic moisture that comes from condensed flue gases. This acidic moisture attacks the chimney from the inside.

That is why a chimney may look good on the outside, but the inside can be a totally different story! Years of normal use with hot and cold cycles and seasonal weather conditions all take their toll on a chimney.

Where does the moisture come from?
Did you know, that for every cubic foot of gas burned, two cubic feet of water vapor is created? That is a lot of water! How can this water vapor affect your chimney?

Water vapor always travels up your chimney - it is only when flue gases drop to 120°F, that condensation begins. When water vapor condenses, ‘rain clouds’ form, and it literally rains in your chimney! Countless drops of acidic moisture soak the flue.

This is more of a problem now than it was in the past due to modern, high-efficiency furnaces. High-efficiency furnaces, as their name indicates, extract more heat from a given amount of fuel than conventional furnaces, and less heat is lost up the chimney.

However, since less heat is sent up the chimney, the temperature in the flue is often below 120°. The acidic ‘rain’ happens frequently, and the flue seldom has a chance to dry out. Herein lies the side effect of high-efficiency furnaces: excessive acidic moisture in the flue. In turn, this acidic moisture wreaks havoc on terracotta flues and masonry.

What is the big deal with a cracked flue tile?
It happens thousands of times each year. Damaged chimneys equal disaster. Carbon monoxide quietly leaks unobserved through cracks in the flue lining and into the home. Even small amounts can make you and your family sick. The risk of a chimney fire turning into a house fire is another serious risk. There are two ways that a chimney fire can ignite your home:

1) A chimney fire is like a huge torch, and the flames can escape through cracks in the flue tile and then through cracked mortar in the surrounding brick, and directly set your house on fire.

2) Chimney fires can rage at temperatures upwards of 2000 degrees. This extreme heat can bring structural materials surrounding the chimney to a flash point, and just by heat alone, can ignite materials in your house.

A cracked flue tile is serious business!