

THE EFFECTS OF WIND



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

Fact Sheet

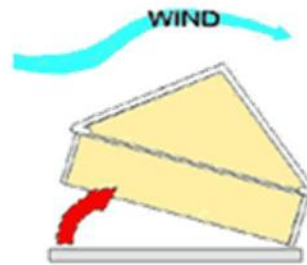


During a blizzard, hurricane, thunderstorm, or tornado, the force of wind on a house works in three ways:



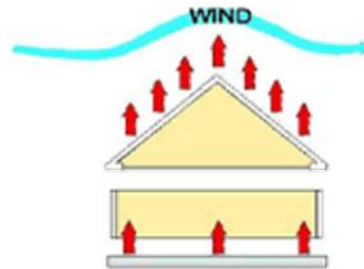
SHEAR or SLIDING

1. It exerts horizontal pressure on the structure which can cause the structure to "tilt" - this is called *shear*. This means the structure can move off of the foundation - this is called *sliding*.



OVERTURNING

2. It exerts a lateral force. If the structure is unable to slide, it causes the structure to rotate off of its foundation. This is called *overturning*.



UPLIFT

3. As it flows over the roof the wind creates a strong lifting effect, much like that of air flowing over an airplane wing. This is called *uplift*.