How Does Your Body Respond to the Cold?

**INCREASED METABOLIC HEAT PRODUCTION**

**SHIVERING**
- An involuntary reaction which causes muscles to contract rapidly, which increases oxygen consumption, calorie burning and increases heat production.

**HABITUATION**
- The adjustment of your body over time as you are exposed to a cold climate.
- As your body adjust shivering becomes less noticeable (cold-induced vasoconstriction).

*Short intense cold exposures (e.g., less than 1 h), a few times per week will produce habituation, but that longer exposures (e.g., more than 8 h) to more moderate cold conditions, on consecutive days over a fairly long period (e.g., more than 2 wk) are required to induce the hypothermic form of habituation. Habituation also occurs locally (i.e., hands), leading to warmer skin temperatures and decreased discomfort.*

-ACSM – Prevention of Cold Injuries during Exercise