



Hypothermia:
What's the big deal

↳ Body's normal response

- ↳ Peripheral vasoconstriction

 - ↳ Increased SVR

- ↳ Increased cardiac output

 - ↳ Oxygen demand increased

- ↳ Shivering

 - ↳ Myocardial oxygen demand can increase upwards of 600%

 - ↳ Limited by glycogen availability

 - ↳ Loss of shivering ability at 32°C

Hypothermia

↳ Effects

- ⌘ Hyperglycemia – Insulin becomes inefficient
- ⌘ Cold diuresis
 - ⌘ Caused by peripheral vasoconstriction, hyperglycemia, and decreased reabsorption of water
- ⌘ Metabolic acidosis
 - ⌘ Hyperkalemia
- ⌘ Coagulopathy - DIC
 - ⌘ Increased bleeding time
 - ⌘ Enzymatic reactions needed to maintain clotting cascades are inefficient

Hypothermia

↳ Effects

↻ EKG changes

- ↻ J waves or Osborne waves and QT prolongation are proportional to the degree of hypothermia
- ↻ Typically not seen in temps greater than 25°C

↻ Oxygen delivery is compromised

- ↻ Adequately oxygenate the blood but it will not release the oxygen to the tissues (Left shift of oxyhemoglobin dissociation curve)

Hypothermia