

## Pathophysiology Concept Map

Assigned Alteration: Edema

### Why Does it Happen? Risk Factors

Edema is caused by fluid imbalance in the body.  
It can be caused by increased vascular permeability, increased hydrostatic pressure, change in osmotic pressure, or lymphatic node dysfunction.

### What is Wrong? Pathophysiologic Alteration

Edema can be caused by underlying health complications. Lower extremity edema is caused by heart failure or blood clots, abdomen by liver disease, around a wound is due to the inflammatory response, upper or lower extremities by non-functioning lymph node, and generalized by renal disease.

### What Other Factors are Involved? Social Determinants of Health

Education and diet are the biggest contributors.  
Those who don't know what edema is or the causes will likely contract it more often. Otherwise, diabetics who have long-term high blood glucose can contract edema.

### How is it Diagnosed? Laboratory and Diagnostic Tests

Diagnosis of edema will test the suspected area. Usually, the provider will press their finger into the effected area (15 seconds). This is the pitting tests. Once the pressure is released, if a pit stays that means there is fluid built up

### What Cues Should the Person Have? Expected Findings

The main cue a patient should have is localized swelling in a certain area.  
The tissue can have a pale, gray, or red color.  
Patient will likely gain weight, have a slow, bounding pulse.  
Decreased hematocrit, decreased serum sodium, and low specific gravity for urine.

### How can This be Prevented? Disease Prevention

Edema can be prevented by reducing the amount of sodium intake. Sodium will pull fluids into the body, and cause fluid to leak into interstitial spaces.  
Being more mobile is also helpful. Being sedentary could cause more fluid buildup.

### Are They Getting Better or Worse? Evaluating Changes in Health Expected Findings

Edema is treatable, but can easily go away on its own. Mild cases can subside easily, however more severe cases may require treatment or medication. Raising the affected area above the heart or wearing compression clothing can accelerate treatment.