

System Failure Cards

Purpose:

To help students understand how different organ systems fail, how homeostasis breaks down, and why organ donation can restore stability (“System Restore”).

KIDNEY FAILURE

Subject A:

Renal System Collapse

System Status:

Kidneys are no longer filtering blood properly.
Toxins and fluid are building up in the body.
Blood pressure is rising dangerously.

Symptoms:

Extreme fatigue
Swelling in legs/face
Nausea, headaches

Impact on Homeostasis:

Body cannot maintain clean, balanced blood chemistry.

Needed Intervention:

Dialysis or kidney transplant.

HEART FAILURE

Subject B:

Cardiovascular System Failure

System Status:

Heart pump is too weak to circulate blood.
Oxygen delivery to organs is dropping.
Risk of organ shutdown.

Symptoms:

Breathlessness
Chest discomfort
Inability to walk long distances

Impact on Homeostasis:

Body cannot deliver oxygen/nutrients consistently.

Needed Intervention:

Mechanical pump support or heart transplant



System Failure Cards

LUNG FAILURE

Subject C:

Respiratory System Degeneration

System Status:

Lungs cannot transfer enough oxygen into the bloodstream.

Carbon dioxide levels are rising.
Breathing is shallow and strained.

Symptoms:

Severe breathlessness
Blue-tinged lips/fingers
Constant exhaustion

Impact on Homeostasis:

Gas exchange failure affects every organ.

Needed Intervention:

Ventilation support or lung transplant.

LIVER FAILURE

Subject D:

Hepatic System Breakdown

System Status:

Liver cannot filter toxins or process nutrients.

Blood clotting is severely reduced.
Toxin levels rising in the brain.

Symptoms:

Jaundice (yellow skin)
Confusion
Swelling in abdomen

Impact on Homeostasis:

Body loses chemical stability and detox ability.

Needed Intervention:

Urgent liver transplant.



System Failure Cards

CORNEA DAMAGE (TISSUE)

Subject E:

Visual System Impairment

System Status:

Cornea is scarred/clouded.
Light cannot enter the eye clearly.

Symptoms:

Blurred or lost central vision
Pain in bright light

Impact on Homeostasis:

Reduced independence, safety, and
mobility.

Needed Intervention:

Corneal transplant (tissue donation).

MUSCULOSKELETAL FAILURE (TISSUE)

Subject F:

Bone or Tendon Loss

System Status:

Critical bone/tendon is missing or
damaged.
Limb cannot move or support weight.

Symptoms:

Severe pain
Inability to walk or lift

Impact on Homeostasis:

Loss of mobility and function.

Needed Intervention:

Donor bone/tendon graft.



System Failure Cards

PANCREATIC FAILURE

Subject G:

Endocrine System Dysfunction

System Status:

Pancreas cannot produce insulin.
Blood glucose rising uncontrollably.

Symptoms:

Extreme thirst
Frequent urination
Rapid weight loss

Impact on Homeostasis:

Blood sugar regulation collapses.

Needed Intervention:

Insulin therapy or islet/pancreas
transplant.

