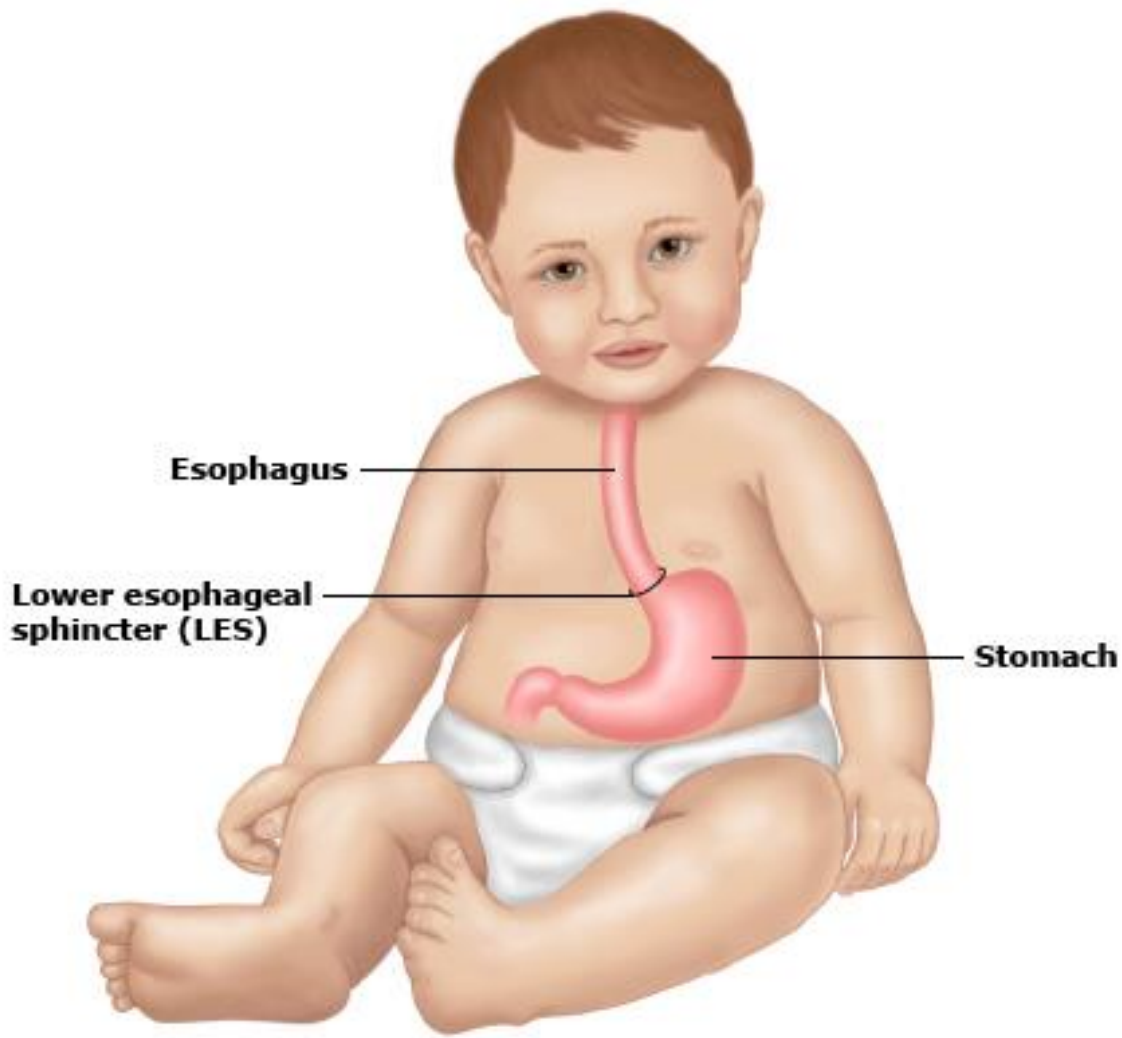


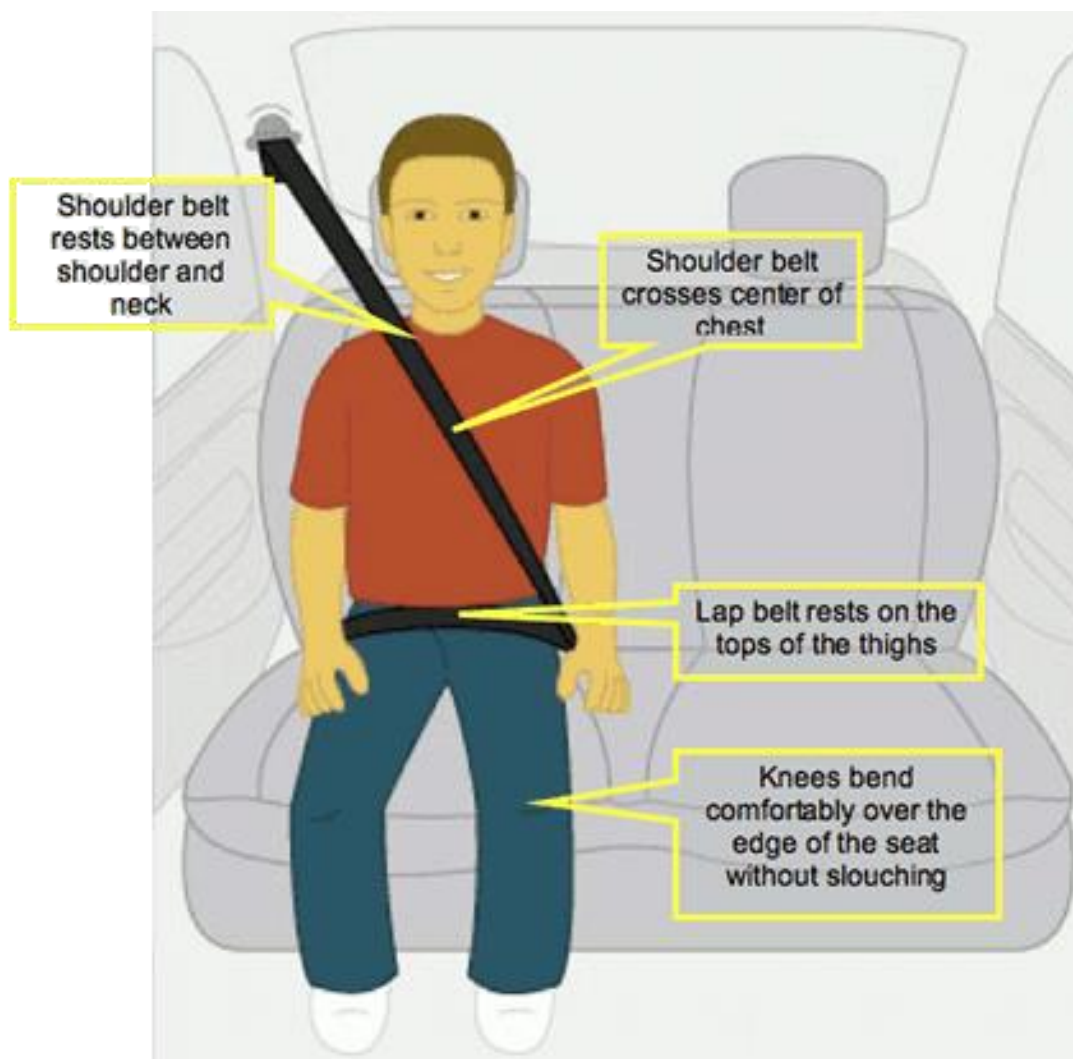
1. A jogger has stepped in a pothole and sprained his ankle. What organ systems have suffered damage?



2. A newborn baby is unable to hold down any milk. Examination reveals a developmental disorder in which the esophagus fails to connect to the stomach. What survival needs are most immediately threatened? Explain your answer.



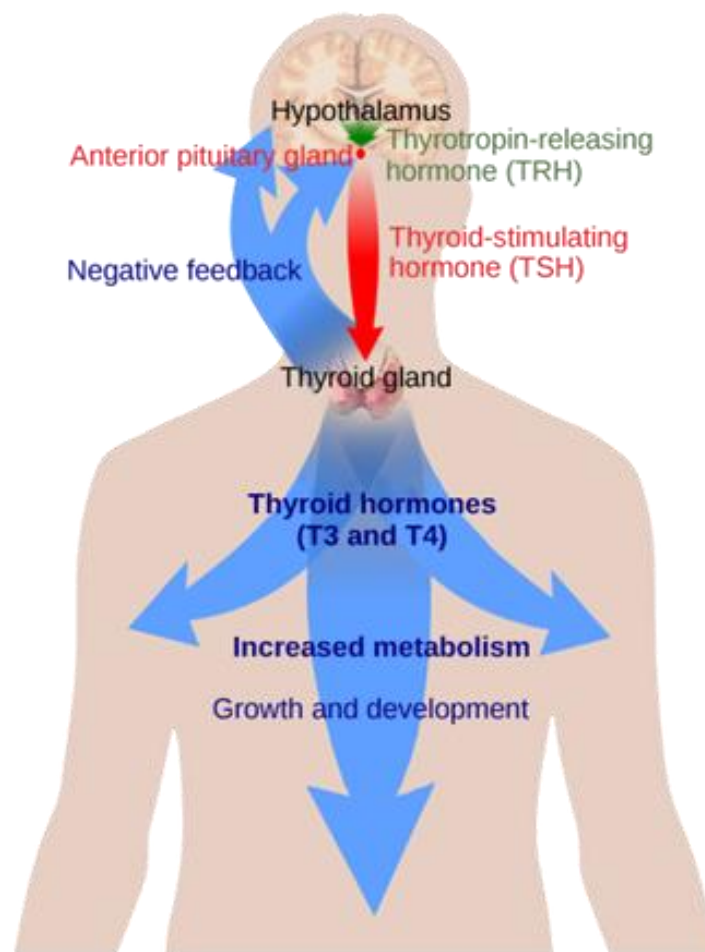
3. The Chan family was traveling in their van and had a minor accident. The children in the backseat were wearing lap belts, but they still sustained bruises around the abdomen and had some internal organ injuries. Why is this area more vulnerable to damage than others?



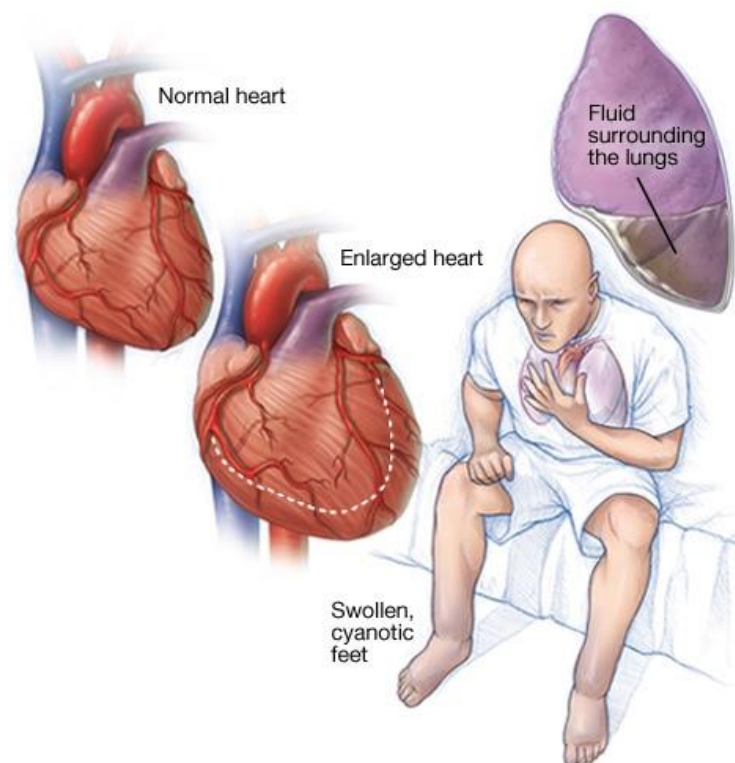
4. John, a patient at Jones City Hospital, is in tough shape. He has a hernia in his inguinal region, pain from an infected kidney in his lumbar region, and severe bruises and swelling in his pubic region. Explain where each of these regions is located.



5. The hormone thyroxine is released in response to a pituitary hormone called TSH. As thyroxine levels increase in the blood, they exert negative feedback on the release of TSH by the pituitary gland. What effect will this have on the release of TSH?



6. In congestive heart failure (CHF), the weakened heart is unable to pump with sufficient strength to empty its own chambers. As a result, blood back up in the veins, blood pressure rises, and circulation is impaired. Describe what will happen as this situation worsens owing to positive feedback. Then, predict how a heart-strengthening medication will reverse the positive feedback.



7. The following advanced imaging techniques are discussed in the text: CT, DSA, PET, ultrasound, and MRI.

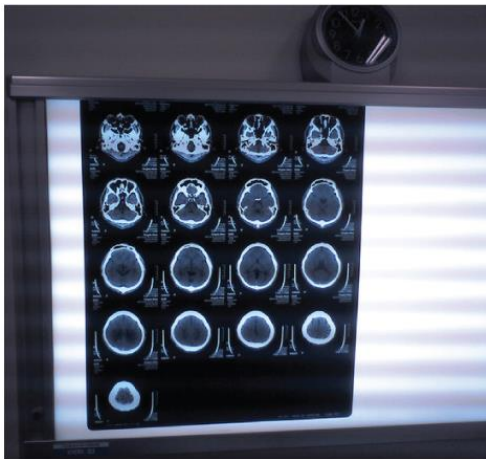
a) Which of these techniques uses x-rays?

b) Which uses radio waves and magnetic fields?

c) Which uses radioisotopes?

d) Which displays body regions in sections?

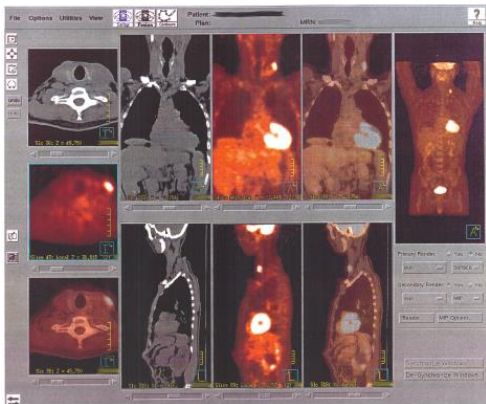
*** You may have more than one answer for each question.**



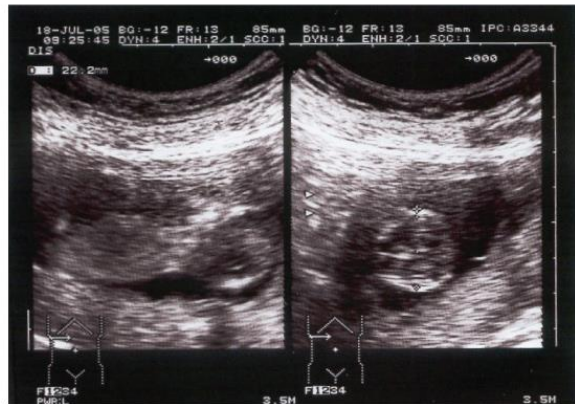
(a)



(b)



(c)



(d)

8. A patient reports stabbing pains in the right hypochondriac region. The medical staff suspects gallstones. What region of the body will be examined?



9. Mr. Harvey, a computer programmer, has been complaining of numbness and pain in his right hand. His nurse practitioner diagnoses his problem as carpal tunnel syndrome and prescribes use of a splint. Where will Mr. Harvey apply the splint?

