Organ and Tissue Transplants

When a doctor performs a transplant operation, he or she replaces a diseased or damaged organ or tissue. Sometimes a tissue is moved from one place to another on the same person. This procedure is called an autograft. (Auto- means “self,” and -graft means “transplant.”) A burn victim may have an autograft in which a section of his or her healthy skin is transplanted to cover the burn.

Sometimes a person receives an organ or tissue from another person. This is called an allograft. (Allo- means “different.”) An example of an allograft is the transplantation of a kidney from the body of one person into that of another person. One problem with allografts is rejection. Rejection occurs when the patient’s body recognizes the transplanted organ or tissues as foreign, similar to the way in which a mother cat recognizes a kitten from another litter as not belonging to her. Rejection is a serious problem because the body begins to attack the transplanted organ or tissue. One way of preventing rejection is by giving the patient certain drugs.

Transplants are performed to save a patient’s life or to correct a serious medical condition. For example, a person with severe liver disease might need a new liver in order to survive. Transplanting a part of the eye called the cornea can help some blind people to see. The illustration shows some of the many organs and tissues that doctors can transplant.

Answer the following questions on a separate sheet of paper.

1. Autografts are never rejected. Why do you think this is true?
2. Why do you think doctors try to use autografts rather than allografts on burn patients?
3. A patient’s body is less likely to reject an allograft if it comes from a close relative. Why do you think this is true?
4. Do you think doctors would have more difficulty transplanting an organ system than transplanting an organ? Think of an example to explain your answer.