

# Lesson #4 Activity

## Corneal Transplant Matching Worksheet - Answers

### Directions:

Match each of the available donated corneas on the left with a transplant recipient on the right. Note that one person will not get a transplant.

Use these guidelines when making your decision:

1. The younger the patient, the higher the cell count they will need. The cells must last a lifetime!
2. The graft size in the donor cornea must be greater than or equal to the cornea size of the recipient or it won't fit.

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| A. Donor Age: 19 years<br>Cell Count: 3,198 cells/mm <sup>2</sup><br>Graft size: 7.7mm | 1. Sally - Age: 3 months<br>Diagnosis: Peter's Anomaly<br>Cornea size 6.5mm        |
| B. Donor Age: 55 years<br>Cell Count: 2,250 cells/mm <sup>2</sup><br>Graft size: 8.0mm | 2. Tim - Age: 17 years<br>Diagnosis: Keratoconus<br>Cornea size: 8.5mm             |
| C. Donor Age: 40 years<br>Cell count: 2,400 cells/mm <sup>3</sup><br>Graft size: 7.0mm | 3. Sue - Age: 30 years<br>Diagnosis: Fuch's dystrophy<br>Cornea size: 7mm          |
|  | 4. John - Age: 40 years<br>Diagnosis: scar from old eye injury<br>Cornea size: 7mm |

**Goal:** Draw a line to match available corneas to transplant recipients.

Which recipient does not get a transplant: Recipient 2 - Tim

For each example, why did you assign this cornea to this patient?

A. Sally is the youngest patient and will need the highest cell count. The graft size is large enough to fit her cornea size.

B. John's cornea size is smaller than the graft so it will fit. However, he is older than Sue, so he will need less cell count than she will and can accept Donor B.

C. Sue's cornea size is equal to Donor C. Donor C also has a higher cell count than Donor B, and Sue will need more cells than John.