

Karyotyping Activity

Name _____

Period _____

Central Science → Life Science → Karyotyping Activity

http://www.biology.arizona.edu/human_bio/activities/karyotyping/karyotyping.html

__ You will be arranging chromosomes into a completed karyotype, and interpreting your findings just as if you were working in a genetic analysis program at a hospital or clinic.

__ Karyotyping is one of many techniques that allow us to look for several thousand possible genetic diseases in humans.

__ You will evaluate 3 patients' case histories, complete their karyotypes, and diagnose any missing or extra chromosomes.

Chromosome smear



__ Use the online activity and directions to complete the following: :::::

__ Patient A

Patient A is the nearly-full-term fetus of a forty year old female. Chromosomes were obtained from fetal epithelial cells acquired through amniocentesis.

__ [Complete Patient A's Karyotype.](#)

Have checked on screen _____

A 1. What **notation** would you use to characterize Patient A's karyotype?

A 2. What **diagnosis** would you give patient A?

__ Patient B

Patient B is a 28 year old male who is trying to identify a cause for his infertility. Chromosomes were obtained from nucleated cells in the patient's blood.

__ [Complete Patient B's Karyotype.](#)

Have checked on screen _____

B 1. What **notation** would you use to characterize Patient B's karyotype?

B 2. What **diagnosis** would you give patient B?

__ Patient C

Patient C died shortly after birth, with a multitude of anomalies, including polydactyly and a cleft lip. Chromosomes were obtained from a tissue sample.

__ [Complete Patient C's Karyotype.](#)

Have checked on screen _____

C 1. What **notation** would you use to characterize Patient C's karyotype?

C 2. What **diagnosis** would you give patient C?