Diagnosing Sarcoma

Sarcoma develops in connective tissues, such as the bone, cartilage or muscle, and can be diagnosed with a variety of tests.

**DIAGNOSIS OF SARCOMA involves a spectrum of tools.** These techniques serve to confirm and subclassify the sarcoma type or to distinguish it from other cancers or benign scarring.

A. **HISTOLOGY** establishes a sarcoma diagnosis by examining the appearance of cancer cells under a microscope.

B. **STANDARD IMMUNOHISTOCHEMISTRY**, a widely used staining technique, can identify a specific protein within the nucleus, cytoplasm or on the surface of the cancer cell.

C. **CHROMOSOMAL KARYOTYPING** reveals chromosomal translocations and deletions indicative of certain types of sarcoma.

D. **FLUORESCENT IN SITU HYBRIDIZATION (FISH)**, a more sensitive test than karyotype analysis, uses molecular probes to detect genetic abnormalities. Another more sensitive test, reverse transcriptase polymerase chain reaction (RT-PCR), detects small deletions and point mutations.

Sarcoma develops from the cells that originate from the mesoderm, a germ layer that develops from the embryo along with the endoderm and ectoderm.

**THE MESODERM** gives rise to all connective tissues, including bone, muscle and blood vessels, as well as fat.