

## Common Cytogenetic Changes in Sarcomas

Histologic type	Characteristic cytogenetic events
Alveolar soft-part sarcoma	t(X;17)(p11;q25)
Aggressive fibromatosis (desmoid)	Trisomies 8 and 20 Deletion of 5q
Lipoma (typical)	12q15 rearrangement
Well-differentiated liposarcoma	Ring form of chromosome 12
Myxoid/round-cell liposarcoma	t(12;16)(q13;p11) t(12;22)(q13;q12)
Pleomorphic liposarcoma	Complex
Malignant fibrous histiocytoma	Complex
Myxoid malignant fibrous histiocytoma	Ring form of chromosome 12
Leiomyoma (uterine)	t(12;14)(q15;q24) or deletion of 7q
Leiomyoma (extrauterine)	Deletion of 1p
Leiomyosarcoma	Deletion of 1p
Monophasic synovial sarcoma	t(X;18)(p11;q11)
Biphasic synovial sarcoma	t(X;18)(p11;q11)
Benign schwannoma	Deletion of chromosome 22
Malignant, low-grade schwannoma	None
Malignant, high-grade schwannoma (malignant peripheral nerve sheath tumors)	Complex
Ewing sarcoma and primitive neuroectodermal tumor	t(11;22)(q24;q12) t(21;22)(q12;q12)
Desmoplastic small round-cell tumor	t(11;22)(p13;q12)
Dermatofibrosarcoma protuberans	Ring form of chromosomes 17 and 22 t(17;22)(q21;q13)
Endometrial stromal tumor	t(7;17)(p15;q21)
Gastrointestinal stromal tumor	Monosomies 14 and 22 Deletion of 1p
Fibrosarcoma, infantile	t(12;15)(q13;q26)
Low-grade osteosarcoma	Ring chromosomes
High-grade osteosarcoma	Complex
Extraskeletal myxoid chondrosarcoma	t(9;22)(q22;q12) t(9;17)(q22;q11)
Skeletal chondrosarcoma	Complex
Alveolar rhabdomyosarcoma	t(2;13)(q35;q14) t(1;13)(p36;q14), double minutes
Embryonal rhabdomyosarcoma	Trisomies 2q, 8 and 20
Mesothelioma	Deletion of 1p Deletion of 9p Deletion of 22q Deletions of 3p and 6q
Inflammatory myofibroblastic tumor	2p23 rearrangement
Clear cell sarcoma	t(12;22)(q13;q12)

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