Soft tissue tumor	Type	location	Target group	Histologic/ radiologic appearance	Clinical features	Treatment	Genetic mutations	Notes
Lipoma	Adipose tissue/ benign	Subcutaneous tissue	-	Benign adipocytes	Lobulated, Smooth, Glistening, yellow, No necrosis, encapsulated and well circumscribed, not infiltrative (surgeon can easily remove it with his finger)	Excision mostly for cosmetic reasons - When it applies pressure/compresses a nerve.		**Most common soft tissue tumor**
Liposarcoma	Adipose tissue/ malignant	extremities and retroperitoneum	>50 years	1. Grade 1: Well differentiated similar to lipoma in appearance (simplest) 2. Myxoid 3. Grade 3: Pleomorphic (aggressive)	bulky lipomatous tumor, necrosis, Infiltrative	complete excision of a grade 1 liposarcoma is probably curable.	MDM2 gene translocation	**Most common sarcoma in adults**
Nodular fasciitis	Fibrous tissue/ benign	-	-	Atypia, Fibroblastic proliferation, Frequent mitosis, **Tissue culture-like appearance** (many fibroblasts, some inflammatory cells)	Recent history of trauma and rapid increase in the size	-	t(17;22)	Debated on whether it's a reactive process or a tumor.

Soft tissue tumor	Type	location	Target group	Histologic/ radiologic appearance	Clinical features	Treatment	Genetic mutations	Notes
Fibroma	Fibrous tissue/ benign	Skin and subcutaneous tissue (can occur in tongue)	-	Less cellular than fibrosarcoma	-	-	-	Very common
fibrosarcoma	Fibrous tissue/ malignant	Can occur anywhere (usually superficial cutaneous)	Children	More cellular, **storiform pattern** (cells arranged in many different directions) and increased mitosis	-	Good prognosis (usually not high grade). Rarely metastasizes to the lung and are removable	-	Less common than fibroma
Superficial fibromatosis	Fibrous tissue/ benign	A. Palmar B. Plantar C. Penile: (Peyronie Disease)	-	-	-	-	-	-Infiltrative benign fibroblastic proliferation. -Hereditary -Has a negative impact on local function - Not lethal
Deep fibromatosis (Desmoid tumor)	Fibrous tissue/ benign	abdominal wall, mesentery and limbs	20s-30s more common in females	bland (no mitosis, no neoplasia)	-	Complete excision	CTNNB1 (β-catenin) or APC genes leading to increased Wnt signaling. Note: patients with Gardner (FAP) syndrome are susceptible	-Deep more aggressive infiltrative fibroblastic proliferation. - Mostly sporadic -Recurrence is very common -Lethal (cause local destruction of vital organs (infiltrative))

Soft tissue tumor	Type	location	Target group	Histologic/ radiologic appearance	Clinical features	Treatment	Genetic mutations	Notes
Rhabdomyoma	Skeletal muscle/benign	heart and tongue						-Rare -Occurs with tuberous sclerosis
Rhabdomyosarcoma	Skeletal muscle/ malignant				Aggressive lobulated, fleshy and bulky tumor	surgery and chemotherapy, may include radiotherapy.		-More common than rhabdomyoma **-Most common child sarcoma** -3 types (embryonal 60%; alveolar 20%; pleomorphic 20%) -Part of the differential diagnosis with small blue cell tumor
Leiomyoma	Smooth muscle/ benign			Bland, Smooth muscle Cell proliferation, No necrosis, Little mitosis. mitotic count less than 3 in leiomyoma.			fumarate hydratase on chromosome 1q42.3	-Most common soft tissue tumor in the uterus -Could lead to infertility and menstrual cycle problems, including menorrhagia
Leiomyosarcoma	Smooth muscle/ malignant	Deep soft tissue, extremities and retroperitoneum, great vessels, uterus.	Adults, more common in females	Necrosis, increased mitosis. Radiologically: Infiltrative tumor, may obstruct the wall of viscera		Depends on location, size and grade. surgery and chemotherapy		-10-20% of soft tissue sarcomas -Hemorrhagic

Soft tissue tumor	Type	location	Target group	Histologic/ radiologic appearance	Clinical features	Treatment	Genetic mutations	Notes
Synovial sarcoma	Tumor of uncertain origin/ malignant	Near a joint	20-40-years	Monophasic: spindle cells Biphasic: spindle cells and epithelial (glands)	Bulky, large around the knee	aggressive with limb sparing excision, chemotherapy and radiation. Prognosis: 25-65% depending on the stage.	T(X;18) (p11;q11) Makes fusion genes SS18. (signature characteristic)	-Name is misnomer -keratin stain – to emphasize biphasic nature -Metastasis: Lung and lymph nodes
Undifferentiated pleomorphic sarcoma	Tumor of uncertain origin/ malignant	retroperitoneum and thighs	older patients	anaplastic and large pleomorphic cells, abnormal mitoses, and necrosis, no differentiation	- Bulky - Hemorrhagic - Infiltrative	Aggressive with surgery and adjuvant chemotherapy. -Prognosis is poor.	Aneuploid and complex genetic abnormalities (no signature translocation.)	-Old terminology: MFH Malignant Fibrous Histiocytoma -Hemorrhagic -Stains for soft tissues such as smooth muscle and fat cells are negative.