

# Soft Tissue and Bone Tumours

## 1. Foreword



**WHO Classification of Tumours: Editorial Board** (/paragraphcontent/33/273)

**Foreword with changes from the book, including corrigenda** (/paragraphcontent/33/274)

**WHO classification of tumours of soft tissue and bone: ICD-O coding** (/paragraphcontent/33/279)

## 2. Soft tissue tumours



**Soft tissue tumours: Introduction** (/paragraphcontent/33/1)

### **Adipocytic tumours**

Lipoma (/chaptercontent/33/4)

Lipomatosis (/chaptercontent/33/213)

Lipomatosis of nerve (/chaptercontent/33/214)

Lipoblastoma and lipoblastomatosis (/chaptercontent/33/8)

Angiolipoma (/chaptercontent/33/5)

Myolipoma of soft tissue (/chaptercontent/33/9)

Chondroid lipoma (/chaptercontent/33/6)

Spindle cell lipoma and pleomorphic lipoma (/chaptercontent/33/10)

Hibernoma (/chaptercontent/33/7)

Atypical spindle cell / pleomorphic lipomatous tumour (/chaptercontent/33/223)

Atypical lipomatous tumour / well-differentiated liposarcoma (/chaptercontent/33/12)

Dedifferentiated liposarcoma (/chaptercontent/33/14)

Myxoid liposarcoma (/chaptercontent/33/16)

Pleomorphic liposarcoma (/chaptercontent/33/15)

Myxoid pleomorphic liposarcoma (/chaptercontent/33/250)

### **Fibroblastic and myofibroblastic tumours**

Nodular fasciitis (/chaptercontent/33/18)

Proliferative fasciitis and proliferative myositis (/chaptercontent/33/20)

Myositis ossificans and fibro-osseous pseudotumour of digits (/chaptercontent/33/19)

Ischaemic fasciitis (/chaptercontent/33/21)

Elastofibroma (/chaptercontent/33/22)

Fibrous hamartoma of infancy (/chaptercontent/33/23)

Fibromatosis colli (/chaptercontent/33/24)

Juvenile hyaline fibromatosis (/chaptercontent/33/25)

Inclusion body fibromatosis (/chaptercontent/33/26)

Fibroma of tendon sheath (/chaptercontent/33/27)

Desmoplastic fibroblastoma (/chaptercontent/33/28)

Myofibroblastoma (/chaptercontent/33/29)

Calcifying aponeurotic fibroma (/chaptercontent/33/31)

EWSR1-SMAD3-positive fibroblastic tumour (emerging) (/chaptercontent/33/253)

Angiomyofibroblastoma (/chaptercontent/33/33)

Cellular angiofibroma (/chaptercontent/33/34)

Angiofibroma of soft tissue (/chaptercontent/33/251)

Nuchal-type fibroma (/chaptercontent/33/35)

Acral fibromyxoma (/chaptercontent/33/109)

Gardner fibroma (/chaptercontent/33/36)

Palmar fibromatosis and plantar fibromatosis (/chaptercontent/33/38)

Desmoid fibromatosis (/chaptercontent/33/40)

Lipofibromatosis (/chaptercontent/33/41)

Giant cell fibroblastoma (/chaptercontent/33/42)

Dermatofibrosarcoma protuberans (/chaptercontent/33/46)

Solitary fibrous tumour (/chaptercontent/33/37)

Inflammatory myofibroblastic tumour (/chaptercontent/33/43)

Low-grade myofibroblastic sarcoma (/chaptercontent/33/50)

Superficial CD34-positive fibroblastic tumour (/chaptercontent/33/249)

Myxoinflammatory fibroblastic sarcoma (/chaptercontent/33/44)

Infantile fibrosarcoma (/chaptercontent/33/48)

Adult fibrosarcoma (/chaptercontent/33/47)

Myxofibrosarcoma (/chaptercontent/33/49)

Low-grade fibromyxoid sarcoma (/chaptercontent/33/51)

Sclerosing epithelioid fibrosarcoma (/chaptercontent/33/52)

### **So-called fibrohistiocytic tumours**

Tenosynovial giant cell tumour (/chaptercontent/33/57)

Deep fibrous histiocytoma (/chaptercontent/33/54)

Plexiform fibrohistiocytic tumour (/chaptercontent/33/55)

Giant cell tumour of soft tissue (/chaptercontent/33/56)

### **Vascular tumours**

#### *Haemangiomas*

Synovial haemangioma (/chaptercontent/33/269)

Intramuscular angioma (/chaptercontent/33/270)

Arteriovenous malformation/haemangioma (/chaptercontent/33/271)

Venous haemangioma (/chaptercontent/33/272)

Anastomosing haemangioma (/chaptercontent/33/252)

Epithelioid haemangioma (/chaptercontent/33/215)

Lymphangioma and lymphangiomatosis (/chaptercontent/33/67)

Tufted angioma and kaposiform haemangioendothelioma (/chaptercontent/33/211)

Retiform haemangioendothelioma (/chaptercontent/33/71)

Papillary intralymphatic angioendothelioma (/chaptercontent/33/210)

Composite haemangioendothelioma (/chaptercontent/33/209)

Kaposi sarcoma (/chaptercontent/33/70)

Pseudomyogenic haemangioendothelioma (/chaptercontent/33/72)

Epithelioid haemangioendothelioma (/chaptercontent/33/73)

Angiosarcoma (/chaptercontent/33/74)

### **Pericytic (perivascular) tumours**

Glomus tumour (/chaptercontent/33/79)

Myopericytoma, including myofibroma (/chaptercontent/33/78)

Angioleiomyoma (/chaptercontent/33/77)

### **Smooth muscle tumours**

Leiomyoma (/chaptercontent/33/99)

EBV-associated smooth muscle tumour (/chaptercontent/33/226)

Inflammatory leiomyosarcoma (/chaptercontent/33/255)

Leiomyosarcoma (/chaptercontent/33/100)

### **Skeletal muscle tumours**

Rhabdomyoma (/chaptercontent/33/102)  
 Embryonal rhabdomyosarcoma (/chaptercontent/33/104)  
 Alveolar rhabdomyosarcoma (/chaptercontent/33/105)  
 Pleomorphic rhabdomyosarcoma (/chaptercontent/33/107)  
 Spindle cell / sclerosing rhabdomyosarcoma (/chaptercontent/33/106)  
 Ectomesenchymoma (/chaptercontent/33/94)

#### **Gastrointestinal stromal tumour**

Gastrointestinal stromal tumour (/chaptercontent/33/216)

#### **Chondro-osseous tumours**

Soft tissue chondroma (/chaptercontent/33/96)  
 Extraskelatal osteosarcoma (/chaptercontent/33/97)

#### **Peripheral nerve sheath tumours**

Schwannoma (/chaptercontent/33/81)  
 Neurofibroma (/chaptercontent/33/83)  
 Perineurioma (/chaptercontent/33/84)  
 Granular cell tumour (/chaptercontent/33/85)  
 Dermal nerve sheath myxoma (/chaptercontent/33/86)  
 Solitary circumscribed neuroma (/chaptercontent/33/87)  
 Ectopic meningioma and meningotheial hamartoma (/chaptercontent/33/88)  
 Benign triton tumour / neuromuscular choristoma (/chaptercontent/33/90)  
 Hybrid nerve sheath tumour (/chaptercontent/33/91)  
 Malignant peripheral nerve sheath tumour (/chaptercontent/33/92)  
 Malignant melanotic nerve sheath tumour (/chaptercontent/33/82)

#### **Tumours of uncertain differentiation**

Intramuscular myxoma (/chaptercontent/33/110)  
 Juxta-articular myxoma (/chaptercontent/33/111)  
 Deep (aggressive) angiomyxoma (/chaptercontent/33/112)  
 Atypical fibroxanthoma (/chaptercontent/33/115)  
 Angiomatoid fibrous histiocytoma (/chaptercontent/33/116)  
 Ossifying fibromyxoid tumour (/chaptercontent/33/117)  
 Myoepithelioma, myoepithelial carcinoma, and mixed tumour (/chaptercontent/33/118)  
 Pleomorphic hyalinizing angiectatic tumour of soft parts (/chaptercontent/33/113)  
 Haemosiderotic fibrolipomatous tumour (/chaptercontent/33/119)  
 Phosphaturic mesenchymal tumour (/chaptercontent/33/120)  
 NTRK-rearranged spindle cell neoplasm (emerging) (/chaptercontent/33/254)  
 Synovial sarcoma (/chaptercontent/33/121)  
 Epithelioid sarcoma (/chaptercontent/33/127)  
 Alveolar soft part sarcoma (/chaptercontent/33/129)  
 Clear cell sarcoma of soft tissue (/chaptercontent/33/124)  
 Extraskelatal myxoid chondrosarcoma (/chaptercontent/33/125)  
 Desmoplastic small round cell tumour (/chaptercontent/33/126)  
 Extrarenal rhabdoid tumour (/chaptercontent/33/128)  
 PEComa (/chaptercontent/33/130)  
 Intimal sarcoma (/chaptercontent/33/131)  
 Undifferentiated sarcoma (/chaptercontent/33/133)

### **3. Undifferentiated small round cell sarcomas of bone and soft tissue**



Ewing sarcoma (/chaptercontent/33/217)  
Round cell sarcoma with EWSR1-non-ETS fusions (/chaptercontent/33/244)  
CIC-rearranged sarcoma (/chaptercontent/33/230)  
Sarcoma with BCOR genetic alterations (/chaptercontent/33/231)

## 4. Bone tumours



Bone tumours: Introduction (/paragraphcontent/33/261)

### Chondrogenic tumours

Subungual exostosis (/chaptercontent/33/140)  
Bizarre parosteal osteochondromatous proliferation (/chaptercontent/33/256)  
Periosteal chondroma (/chaptercontent/33/258)  
Enchondroma (/chaptercontent/33/137)  
Osteochondroma (/chaptercontent/33/136)  
Chondroblastoma (/chaptercontent/33/142)  
Chondromyxoid fibroma (/chaptercontent/33/138)  
Osteochondromyxoma (/chaptercontent/33/139)  
Synovial chondromatosis (/chaptercontent/33/141)  
Central atypical cartilaginous tumour / chondrosarcoma, grade 1 (/chaptercontent/33/241)  
Secondary peripheral atypical cartilaginous tumour / chondrosarcoma, grade 1 (/chaptercontent/33/267)  
Central chondrosarcoma, grades 2 and 3 (/chaptercontent/33/143)  
Secondary peripheral chondrosarcoma, grades 2 and 3 (/chaptercontent/33/266)  
Periosteal chondrosarcoma (/chaptercontent/33/242)  
Clear cell chondrosarcoma (/chaptercontent/33/146)  
Mesenchymal chondrosarcoma (/chaptercontent/33/145)  
Dedifferentiated chondrosarcoma (/chaptercontent/33/144)

### Osteogenic tumours

Osteoma (/chaptercontent/33/148)  
Osteoid osteoma (/chaptercontent/33/149)  
Osteoblastoma (/chaptercontent/33/150)  
Low-grade central osteosarcoma (/chaptercontent/33/152)  
Osteosarcoma (/chaptercontent/33/153)  
Parosteal osteosarcoma (/chaptercontent/33/156)  
Periosteal osteosarcoma (/chaptercontent/33/157)  
High-grade surface osteosarcoma (/chaptercontent/33/158)  
Secondary osteosarcoma (/chaptercontent/33/232)

### Fibrogenic tumours

Desmoplastic fibroma of bone (/chaptercontent/33/168)  
Fibrosarcoma of bone (/chaptercontent/33/169)

### Vascular tumours of bone

Haemangioma of bone (/chaptercontent/33/234)  
Epithelioid haemangioma of bone (/chaptercontent/33/235)  
Epithelioid haemangioendothelioma of bone (/chaptercontent/33/236)  
Angiosarcoma of bone (/chaptercontent/33/237)

### Osteoclastic giant cell-rich tumours

Aneurysmal bone cyst (/chaptercontent/33/247)  
Giant cell tumour of bone (/chaptercontent/33/161)

Non-ossifying fibroma (/chaptercontent/33/163)

### **Notochordal tumours**

Benign notochordal cell tumour (/chaptercontent/33/165)

Conventional chordoma (/chaptercontent/33/166)

Dedifferentiated chordoma (/chaptercontent/33/257)

Poorly differentiated chordoma (/chaptercontent/33/218)

### **Other mesenchymal tumours of bone**

Chondromesenchymal hamartoma of chest wall (/chaptercontent/33/172)

Osteofibrous dysplasia (/chaptercontent/33/181)

Adamantinoma of long bones (/chaptercontent/33/177)

Simple bone cyst (/chaptercontent/33/179)

Fibrocartilaginous mesenchymoma (/chaptercontent/33/259)

Fibrous dysplasia (/chaptercontent/33/180)

Lipoma and hibernoma of bone (/chaptercontent/33/239)

Leiomyosarcoma of bone (/chaptercontent/33/238)

Undifferentiated pleomorphic sarcoma (/chaptercontent/33/178)

Bone metastases (/chaptercontent/33/187)

### **Haematopoietic neoplasms of bone**

Solitary plasmacytoma of bone (/chaptercontent/33/191)

Primary non-Hodgkin lymphoma of bone (/chaptercontent/33/192)

Langerhans cell histiocytosis (/chaptercontent/33/193)

Erdheim-Chester disease (/chaptercontent/33/194)

Rosai-Dorfman disease (/chaptercontent/33/195)

## **5. Genetic tumour syndromes of soft tissue and bone**



Genetic tumour syndromes of soft tissue and bone: Introduction (/paragraphcontent/33/197)

Enchondromatosis (/chaptercontent/33/200)

Li-Fraumeni syndrome (/chaptercontent/33/202)

McCune-Albright syndrome (/chaptercontent/33/203)

Multiple osteochondromas (/chaptercontent/33/204)

Neurofibromatosis type 1 (/chaptercontent/33/205)

Rothmund-Thomson syndrome (/chaptercontent/33/264)

Werner syndrome (/chaptercontent/33/265)

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