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Panniculitis

Panniculitis refers to a group of conditions that involve inflammation of the fat under the skin. Despite having very diverse causes, most forms of panniculitis have the same clinical appearance. The diagnosis is established by a skin biopsy as there are characteristic microscopic features depending on the cause.

The classification of panniculitis is complicated but, in general, different types can be divided into *mostly septal* or *mostly lobular* panniculitis depending on where the microscopic inflammation is most concentrated. In reality, most types of panniculitis have both lobular and septal inflammation. Further classification is based on whether or not there is inflammation involving the blood vessels of the fat, i.e. [vasculitis](#).

Classification of panniculitis

Mostly septal panniculitis with vasculitis

- [Leukocytoclastic vasculitis](#)
- Superficial thrombophlebitis
- [Cutaneous polyarteritis nodosa](#)

Mostly septal panniculitis without vasculitis

- [Necrobiosis lipoidica](#)
- Scleroderma, which may be localised ([morphoea](#))
- Subcutaneous [granuloma annulare](#)
- [Rheumatoid nodule](#)
- [Necrobiotic xanthogranuloma](#)
- [Erythema nodosum](#)

Mostly lobular panniculitis with vasculitis

- Erythema nodosum leprosum ([leprosy](#))
- Lucio's phenomenon
- Neutrophilic lobular panniculitis associated with [rheumatoid arthritis](#)
- [Erythema induratum of Bazin](#)
- [Crohn disease](#)

Mostly lobular panniculitis without vasculitis

- Sclerosing panniculitis ([lipodermatosclerosis](#))
- [Calciphylaxis](#)
- Oxalosis
- Sclerema neonatorum
- Cold panniculitis
- [Lupus panniculitis](#)
- Panniculitis in [dermatomyositis](#)

- Pancreatic panniculitis
- Alpha-1 antitrypsin deficiency
- Infective panniculitis
- Factitial panniculitis
- Subcutaneous [sarcoidosis](#)
- Traumatic panniculitis
- [Lipoatrophy](#)
- Subcutaneous fat necrosis of the newborn
- Post-steroid panniculitis
- Gout panniculitis
- Crystal-storing panniculitis
- Cytophagic histiocytic panniculitis
- Post-irradiation pseudosclerodermatous panniculitis

Clinical Features

An area of skin involved with panniculitis feels thickened and woody to touch. It may or may not demonstrate discolouration of the overlying skin, either reddening or darker, brownish pigmentation. The area is often tender. Most often, the affected areas appear as raised nodules or lumps under the skin, but may be a plaque or large flat area of thickened skin. When the inflammation has settled, a depression in the skin may be left behind temporarily or permanently (localised [lipodystrophy](#))

Panniculitis



Treatment

Treatment includes:

- Treat the underlying cause, if known (e.g. stop a medication, treat an infection)
- Rest and elevate the affected area
- [Compression hosiery](#) (18–25mm Hg pressure) if these can be tolerated
- Pain relief using anti-inflammatory medications such as aspirin, ibuprofen or diclofenac
- [Systemic steroids](#) (oral or injected) to settle the inflammation
- Anti-inflammatory antibiotics including [tetracycline](#) or [hydroxychloroquine](#)
- [Potassium iodide](#)
- Surgical removal of persistent or ulcerated lesions.

Related topics

On DermNet NZ:

- [Erythema nodosum](#)
- [Necrobiosis lipoidica](#)
- [Morphoea](#) (localised scleroderma)
- [Lipodystrophy](#)

Other web sites

emedicine dermatology:

- [Subacute nodular migratory panniculitis](#) - emedicine dermatology, the online textbook
- [Cold panniculitis](#) - emedicine dermatology, the online textbook

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DermNet does not provide an on-line consultation service.
If you have any concerns with your skin or its treatment, see a [dermatologist](#) for advice.

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