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[Home](#) | [Skin signs of systemic disease](#)

Skin problems associated with diabetes mellitus

It is estimated that 30% of patients with diabetes mellitus will experience a skin problem at some stage throughout the course of their disease. Several skin disorders are more common in diabetic patients, particularly those due to infection such as [candida](#) and [impetigo](#).

Specific skin conditions associated with diabetes mellitus are described below.

- [Diabetic dermopathy](#)
- [Diabetic bullae](#)

Other common conditions in diabetics are [foot ulcers](#) and [necrobiosis lipoidica](#).

Diabetics with renal failure are also prone to [reactive perforating collagenosis](#) and [Kyrle disease](#).

Diabetic dermopathy

Diabetic dermopathy is a skin condition characterised by light brown or reddish, oval or round, slightly indented scaly patches most often appearing on the shins. Although these lesions may appear in anyone, particularly after an injury or trauma to the area, they are one of the most common skin problems found in patients with diabetes mellitus. It has been found to occur in up to 30% of patients with diabetes.

Diabetic dermopathy is sometimes also referred to as shin spots and pigmented pretibial patches.

What causes diabetic dermopathy?

The exact cause of diabetic dermopathy is unknown but may be associated with diabetic neuropathic (nerve) and vascular (blood vessels) complications, as studies have shown the condition to occur more frequently in diabetic patients with retinopathy (retinal damage of the eye), neuropathy (nerve/sensory damage) and nephropathy (kidney damage).

Diabetic dermopathy tends to occur in older patients or those who have had diabetes for at least 10–20 years. It also appears to be closely linked to increased glycosylated haemoglobin, an indicator of poor control of blood glucose levels.

Because lesions often occur over bony parts of the body such as the shins, it is thought that diabetic dermopathy may also be a magnified response to injury or trauma to these areas. Studies have shown that shin spots have appeared in response to trauma with heat, cold or blunt objects in patients with diabetes.

What are the signs and symptoms?

Diabetic dermopathy lesions appear most frequently on the shins. Less commonly lesions can be found on the front of the thighs, forearm, side of the foot, scalp and trunk. Features of lesions are:

- Round or oval shaped
- Reddish brown colour
- Initially scaly but then flattens out and becomes indented
- Commonly occur on both shins

The presence of four or more lesions is almost always limited to patients with diabetes. People presenting with shin spots not already diagnosed with diabetes should undergo further investigation to rule out the possibility of early diabetes.

What is the treatment?

Diabetic dermopathy lesions or shin spots are harmless. They usually do not require any treatment and tend to go away after a few years, particularly following improved blood glucose control.

Diabetic bullae

Diabetic bullae, also known as bullosis diabeticorum are blister-like lesions that occur spontaneously on the feet and hands of diabetic patients. Although rare, it is a distinct marker for diabetes. Diabetic bullae appear to occur more commonly in men than women and between the ages of 17–84 years. It is also more common in patients whom have long-standing diabetes or with multiple diabetic complications.

Blisters can be from 0.5 to 17 centimetres in size. They often have an irregular shape. Two types of diabetic bullae have been defined.

- Intraepidermal bullae – these are blisters filled with a clear, sterile viscous fluid and normally heal spontaneously within 2–5 weeks without scarring and atrophy.
- Subepidermal bullae – these are less common and may be filled with blood. Healed blisters may show scarring and atrophy.

In most cases diabetic bullae heal spontaneously without treatment. Patients should make sure the blister remains unbroken to avoid secondary infection.

Related information

On DermNet NZ:

- [Skin signs and systemic disease](#)
- [Diabetic foot ulcers](#)
- [Necrobiosis lipoidica](#)
- [Granuloma annulare](#)
- [Kyrle disease](#)

Other websites:

- Emedicine
 - [Necrobiosis Lipoidica](#)
 - [Bullous Disease of Diabetics](#)
 - [Diabetic Foot](#)

Books about skin diseases:

See the [DermNet NZ bookstore](#)

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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