



[Authoritative facts](#) about the skin from the [New Zealand Dermatological Society Incorporated](#).

[Home](#) | [Skin reactions to external agents](#)

Hydroa vacciniforme

Hydroa vacciniforme is one of the rarest forms of [photosensitivity](#) dermatoses. It affects sun-exposed skin and is characterised by recurrent fluid-filled blisters ('hydroa') that heal with [pox](#)-like ('vacciniform') scars.

Hydroa vacciniforme



Who gets hydroa vacciniforme?

Hydroa vacciniforme mostly affects children aged 3–15 years. It is more commonly in females than in males. The disease tends to have a later onset and run a longer course in males.

The cause of hydroa vacciniforme is usually unknown. Long wavelength ultraviolet radiation (UVA) is most often implicated.

In some cases hydroa vacciniforme has been associated with Epstein–Barr viral (EBV) infection, which normally results in [glandular fever \(infectious mononucleosis\)](#). In these cases, the hydroa vacciniforme lesions may spread to involve areas that are not exposed to the sun.

What are the clinical features of hydroa vacciniforme?

Sun-exposed areas are affected most and include the face, ears, hands and lower limbs. In most cases signs and symptoms usually start to occur about 30 minutes to 2 hours after sun exposure and present as:

- Mild burning, itching or stinging
- Development of tense, swollen bumps (papules) and blisters (vesicles)
- These turn into dimpled, pit-like papules with black scabs (necrosis) on a red and inflamed base

- Lesions heal to form pale depressed scars

The rash usually first appears in spring with recurrences throughout the summer months.

Some patients may have other symptoms, including mild inflammation of the eyes (keratoconjunctivitis and photophobia), lifting of fingernails and toenails (photo-[onycholysis](#)) and rarely fever and malaise.

Severe EBV infection associated with hydroa vacciniforme has resulted in lymphoproliferative disorders (NK-cell lymphoma or leukaemia) and may have a fatal outcome.

What is the treatment for hydroa vacciniforme?

In most patients the condition disappears by the time they reach adolescence, although the scars are permanent. Patients with hydroa vacciniforme must take measures to avoid sun exposure by following [sun protection](#) strategies. This includes applying high SPF sunscreens with UVA blocking agents and wearing [protective clothing](#). This may prevent or reduce the number of recurrences of the condition.

Oral medication may be useful in reducing outbreaks but does not reliably prevent hydroa vacciniforme lesions.

- Most commonly used are oral antimalarials such as [hydroxychloroquine](#).
- [Oral antioxidants](#) such as beta-carotene may also help.

[Phototherapy](#) with [narrowband UVB](#) or [photochemotherapy](#) (PUVA) has also been used to confer relative photoprotection and desensitisation.

Related information

References:

- Book: Textbook of Dermatology. Ed Rook A, Wilkinson DS, Ebling FJB, Champion RH, Burton JL. Fourth edition. Blackwell Scientific Publications.

On DermNet NZ:

- [Photosensitivity](#)
- [Polymorphic light eruption](#)
- [Solar urticaria](#)
- [Actinic prurigo](#)
- [Phototesting](#)

Other websites:

- [Hydroa Vacciniforme](#) - emedicine dermatology, the online textbook

Books about skin diseases:

See the [DermNet NZ bookstore](#)

Author: Vanessa Ngan, staff writer

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.

Created 2006. Last updated 10 Dec 2007. © 2007 NZDS. Disclaimer.