

# Herpes Zoster

## Definition

An acute, localized infection with the virus **Herpes Varicellae**, causing painful blistering eruptions.

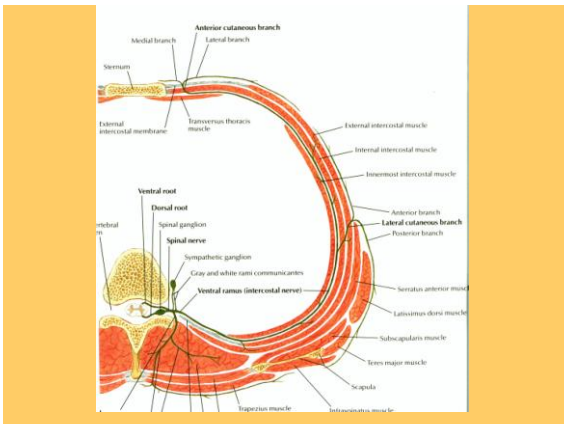
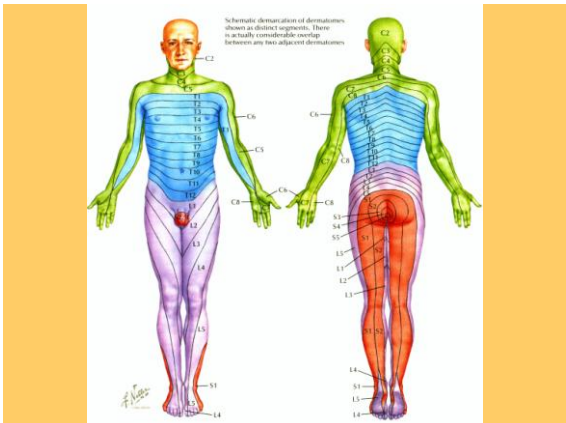
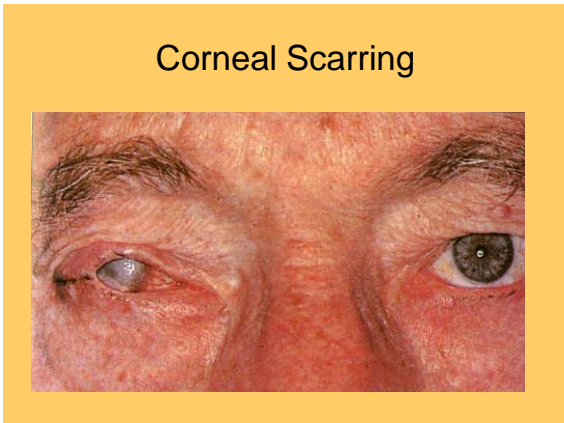
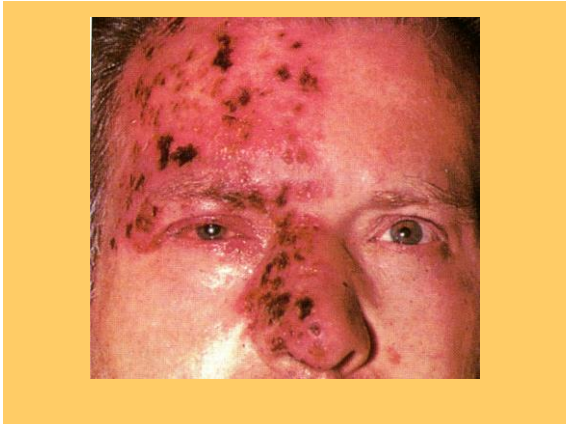
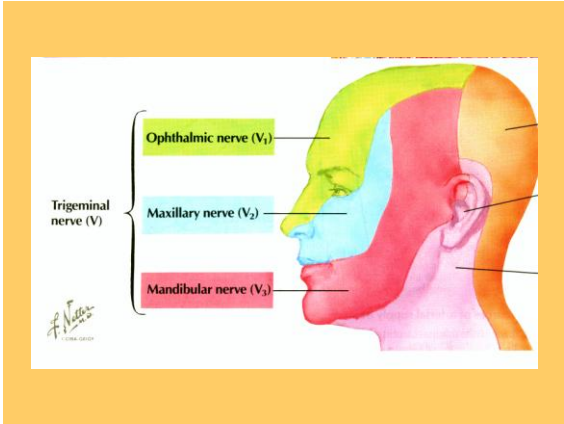
## Causes, Incidence, and Risk Factors

- Herpes zoster, or shingles, is caused by the same virus that causes chickenpox.
- The virus becoming dormant (inactive) after an attack of chickenpox and re-emerges many years later.
- The cause of the reactivation is unknown. Usually only one attack occurs, without recurrence.
- If an adult is exposed to herpes zoster virus and has not had chickenpox, a severe case of chickenpox usually develops rather than shingles.

- The virus resides in a dormant condition in the nerve tracts that emerge from the spine.
- When it is reactivated, it spreads along the nerve tract, first causing pain or a burning sensation.
- The typical rash appears in 2 to 3 days, after the virus has reached the skin. It consists of red patches of skin with small vesicles
- The rash maximizes over the next 3 to 5 days.
- Then the blisters break forming small ulcers which begin to dry and form crusts.
- The crusts fall off in 2 to 3 weeks, leaving behind pink healing skin.



- Lesions typically appear along a single unilateral dermatome.
- The trunk is most often affected, showing a rectangular belt of rash from the spine around one side of the chest to the breastbone (sternum).
- Lesions may also occur on the neck or face, particularly the **trigeminal nerve** in the face.
- The trigeminal has three branches:
  - Ophthalmic
  - Maxillary
  - Mandibular
- Which branch is involved determines where on the face the skin lesions will be.
- Trigeminal nerve involvement may include lesions in the mouth or eye. Eye lesions may lead to permanent blindness.



- Involvement of the **facial nerve** may cause **Ramsay Hunt syndrome** with facial paralysis, hearing loss, loss of taste in half of the tongue and skin lesions around the ear and ear canal.
- Shingles may, on rare occasion, involve the genitalia or upper leg.

- Affect any age group but is much more common in
  - adults over 60 years old
  - in children who had chickenpox before the age of one year
  - in individuals who are immunocompromised.
- 2 out of every 1,000 people
- Typical outbreak involves 1 dermatome
- Generalised or recurrent may suggest underlying disease such as leukaemia, Hodgkins, HIV and immunocompromised

## Post-Herpetic Neuralgia

- Shingles may be complicated by **post-herpetic neuralgia**.
- This is persistence of pain in the area where the shingles occurred
  - May last from months to years following the initial episode.
  - Can be severe
- Can be contagious through direct contact in an individual who has not had chickenpox and therefore has no immunity.

## Prevention

- Prevention is uncertain.
- Avoid contact with the skin lesions of persons with known herpes zoster infection, if you have never had chickenpox or especially if your immune system is compromised.

## Symptoms

- warning symptom of unilateral pain, tingling or burning sensation limited to a specific part of the body
- erythema followed by the vesicles
- grouped, dense, deep, small blisters (vesicles) that ooze and crust
- lymph node swelling may occur
- pain and burning sensation may be intense

### **Additional symptoms that may be associated with this disease:**

- vision abnormalities
- taste abnormalities
- ptosis (drooping eyelid)
- ophthalmoplegia (loss of eye motion)
- hearing loss
- genital lesions (female)
- genital lesions (male)

## Signs and Tests

- Diagnosis is suspected based on the appearance of the skin lesions, and strengthened by a prior history of chickenpox or shingles.
- Tests are rarely necessary, but may include:
  - viral culture of skin lesion
  - [Tzanck test](#) of skin lesion
  - FBC may show elevated WBC
  - Specific immunoglobulin measurement demonstrates elevation of [varicella](#) immune globulin

## Treatment

- Resolves spontaneously, may only needs symptomatic relief
- [Acyclovir](#) (antiviral) may be prescribed to
  - shorten the course
  - reduce pain
  - reduce complications
- For the greatest efficacy acyclovir should be started ASAP
- [Corticosteroids](#) (prednisone) to reduce inflammation
- [Analgesics](#) (pain relief)
- [Antihistamines](#) (itching)
- [Zostrix](#) (post-herpetic neuralgia)



## Prognosis

- Herpes zoster usually clears in 2 to 3 weeks and rarely recurs.
- Involvement of motor nerves may cause a temporary or permanent nerve palsy.
- Neuralgia may persist for years in 50% of the over 60's, particularly if the trigeminal nerve was affected.

## Complications

- post herpetic neuralgia
- secondary bacterial skin infections
- recurrence (rare)
- Spread to viscera in immunosuppressed persons
- blindness (if lesions occur in the eye)
- deafness
- loss of taste
- facial paralysis



