CUTANEOUS INFECTIONS IN JUDO

Cutaneous Infections in Judo

Introduction

Due to the close contact inherent in the sport of judo, athletes are more susceptible to the transmission of skin infections. Many types of skin infections exist. This document addresses a few of the more common infectious skin conditions seen in judo, it is intended to serve as a guide. Skin conditions should be evaluated by a trained healthcare professional to ensure appropriate identification.

To prevent infection outbreaks, it is important that all participants are aware of the conditions, methods of transmission, and treatment options.

Prevention of Cutaneous Infections in Judo

- Judogis and other practice wear should be cleaned regularly, ideally following each training session.
- The tatami, training areas, and locker rooms should be cleaned regularly with a broad-spectrum cleaning agent (see section below for details).
- If an athlete has a suspicious skin lesion, it should be assessed by a healthcare practitioner before participating in any training sessions or competitions.
- Once an infection has been identified, the appropriate treatment and return to sport guidelines should be followed.
- Athletes with a skin lesion should have the authorization from a trained healthcare provider to return to sport.
- It is recommended that all individuals wear sandals in a common shower area/locker room.

Cleaning of Tatami & Shared Equipment

- For regular training sessions: the tatami should be swept & cleaned daily and disinfected at least once a week with a suitable broad-spectrum cleaning solution or with a 10% bleach solution (1:10 // bleach: water). If disinfected more frequently, a 2% bleach solution can be used (1:50 // bleach: water).

  **** In the case of active infections, it is recommended to clean the tatami after each training session.**
- During a training camp: the tatami should be swept & disinfected daily with a suitable broad-spectrum cleaning solution or with a 2% bleach solution (1:50 // bleach: water).
- During a competition: the tatami should be swept & disinfected daily with a suitable broad-spectrum cleaning solution or with a 2% bleach solution (1:50 // bleach: water).
- All shared equipment should be disinfected with an appropriate broad-spectrum cleaning solution after use.
- All blood contamination should be cleaned with a 10% bleach solution (1:10 // bleach: water).

Broad-spectrum cleaning solution: effective against a wide range of infectious agents (bacterial, viral & fungal)

Cutaneous Infection: Ring Worm (Tinea Corpis & Tinea Capitis)

Characteristics/Symptoms (description)

Fungal infection

Itchy, red-brown scaling, annular (ring-shaped) plaques that will expand laterally and clear centrally as the infection progresses

Specific to Tinea Capitis (Scalp): lesions appear as small grayish scales and result in scattered bald patches

Treatment

Topical antifungal creams (ex: Clotrimazole, Miconazole, Terbinafine or Ketoconazole)

Systemic antifungal medication can be used in cases that do not improve or in severe cases

** Caution: monitoring by a medical doctor is required if using systemic antifungal medication

Personal items, clothing and bedding should be cleaned frequently to prevent the spread of the infection to other areas of the body

Transmission (ease/method)

High transmission

Direct contact (person-person/animal-person) and indirect contact with infected personal items (ex: towels, bedding, hairbrush/comb & clothing) or surfaces (ex: tatami & gym equipment)

Fungi favor warm, moist and dark environments

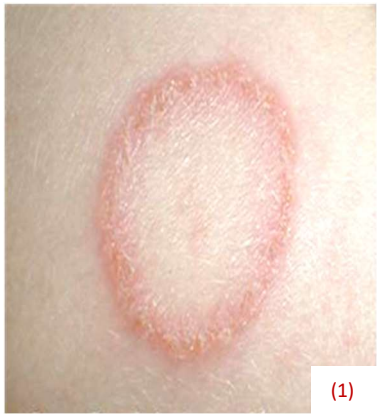
Excessive perspiration & friction increase susceptibility to this condition

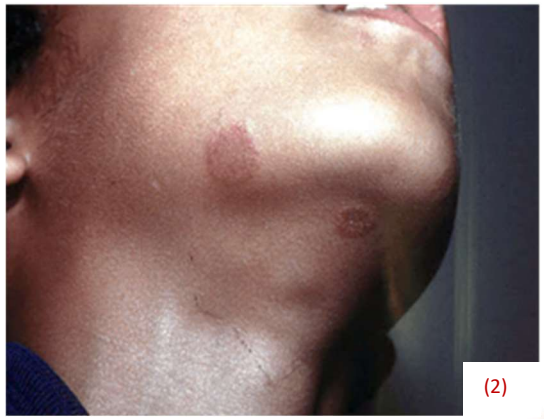
Return to Sport

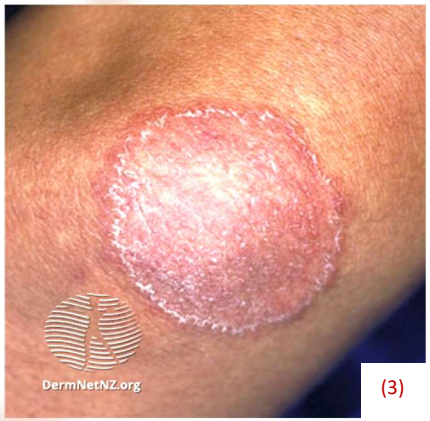
Only once all the lesions are completely gone: the infectious period lasts as long as the condition persists (in some cases, this can be up to two weeks after starting the antifungal treatment).

A regular bandage or tape is ineffective in preventing the transmission

Return to sport is possible **ONLY, if a bio-occlusive dressing is applied and which can remain in place throughout the training session**


(1)


(2)



(3)

(4)

Cutaneous Infection: Athlete's Foot (Tinea Pedis)

Characteristics/Symptoms (description)

Fungal infection

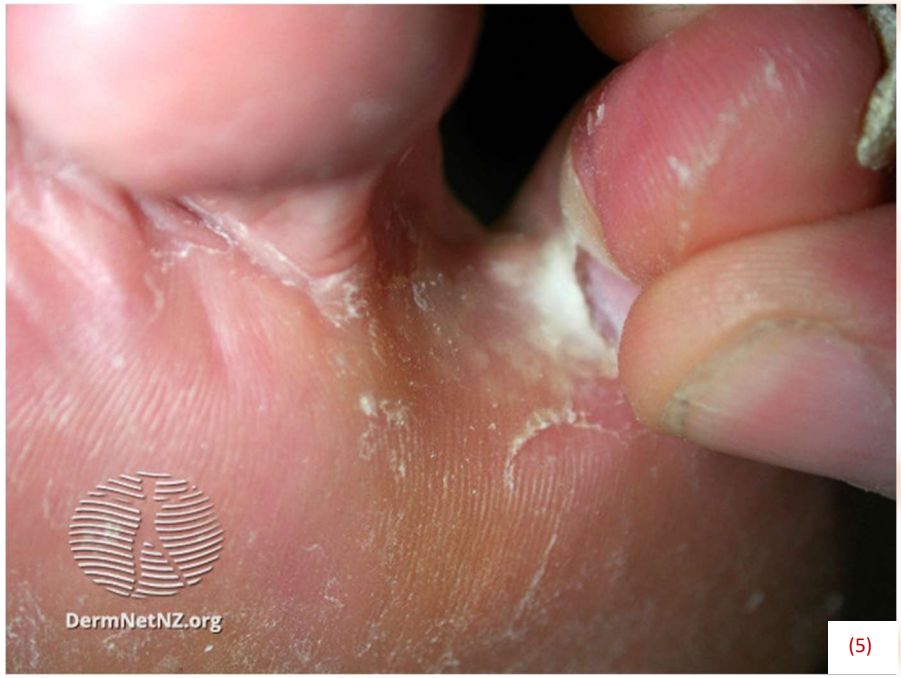
Itchy, dry, scales in the webspace of the toes or the sole of the foot

Treatment

Topical antifungal cream

Prevention: good foot hygiene

- Keep feet as dry as possible (if needed use talcum powder)
- Wear clean/dry socks
- Keep athletic and street shoes dry
- It is recommended that everyone use sandals in a common shower area
- Dry feet thoroughly after each shower



(5)

Transmission (ease/method)

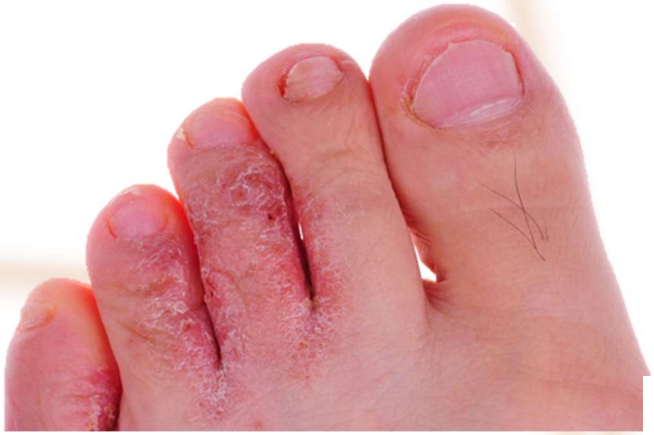
Moderate transmission

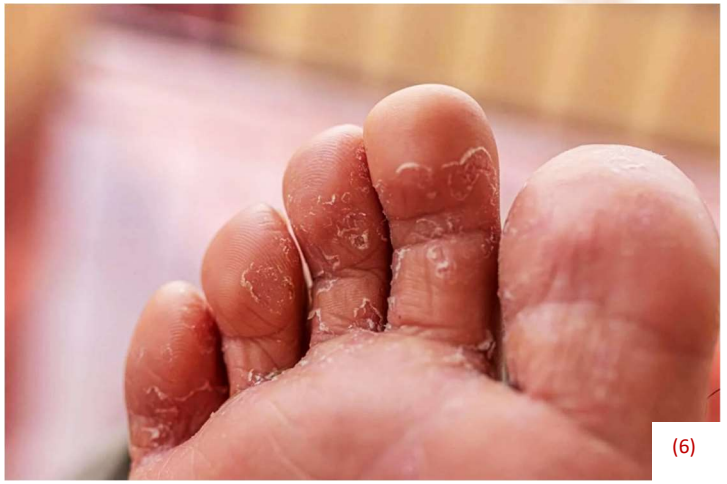
Contaminated changing rooms & showers most common for transmission

Fungi 'grow' best in warm, moist and dark environments

Return to Sport

To avoid infecting others, it is best not to have bare feet if the condition is present (ie: lesions should be covered)


(7)


(6)

Cutaneous Infection: Impetigo (Impetigo Contagiosa)

Characteristics/Symptoms (description)

Bacterial infection

2 possible presentations: Bullous & Non-Bullous

Bullous Type:

- Multiple fluid filled vesicles that either coalesce or individually enlarge, forming blister like lesions that eventually collapse
- A honey-coloured crust develops, and when crusts are removed, erythematous plaques will drain serous fluid

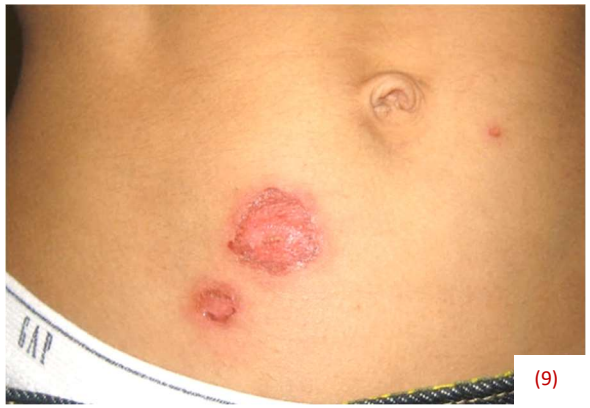
Non-Bullous Type:

- Small vesicles or pustules with honey-coloured crusts which also drain serous fluid
- Mild itching
- Mild soreness (sometimes)
- Tends to develop on areas of the body which are subject to friction
- Individual may present with enlarged lymph glands
- The infection may be associated with both staphylococcal and streptococcal bacteria

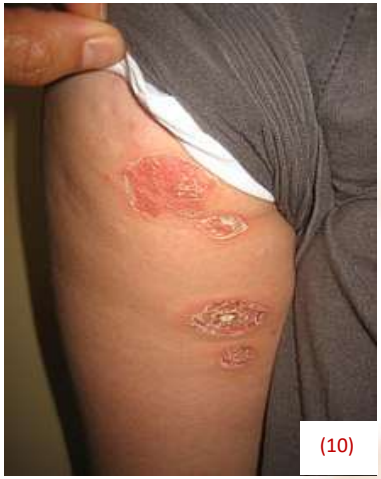
Treatment

Thorough cleaning and debridement of the crusted area with & application of a topical antibacterial cream (Ex: Bactroban or Taro-Mupirocin)

An oral antibiotic may be prescribed by a doctor



(9)


(10)

Transmission (ease/method)

High transmission

Mainly through close direct contact (skin to skin)

Can also be transmitted by indirect contact (ex: via contaminated tissues/items/surfaces)

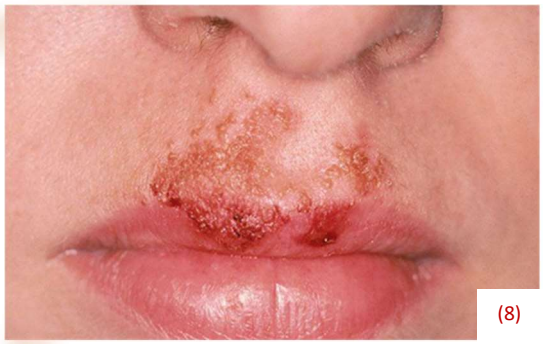
Return to Sport

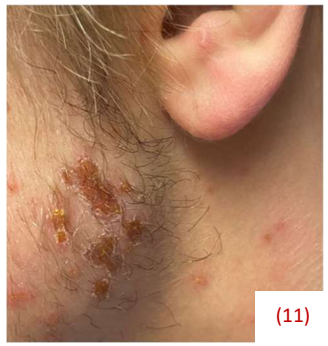
At least 72 hours of antibiotic treatment

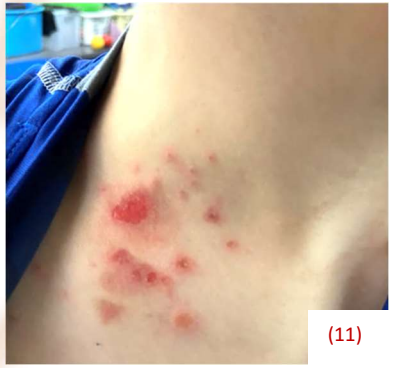
No new lesions for at least 48 hours

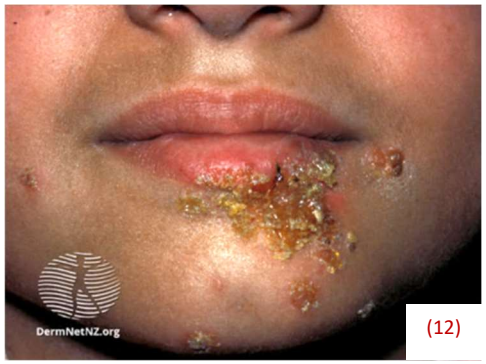
Lesions should be dry (no longer leaking fluid)

Lesions should be covered with bio-occlusive dressing during contact sports


(8)


(11)


(11)



(12)

Cutaneous Infection: Bacterial Infections around fingernails & toenails (Paronychia)

Characteristics/Symptoms (description)

Rapid onset

Painful bright red swelling around the nail fold

Accumulation of purulent material (pus) in the nail fold

Transmission (ease/method)

N/A

Return to Sport

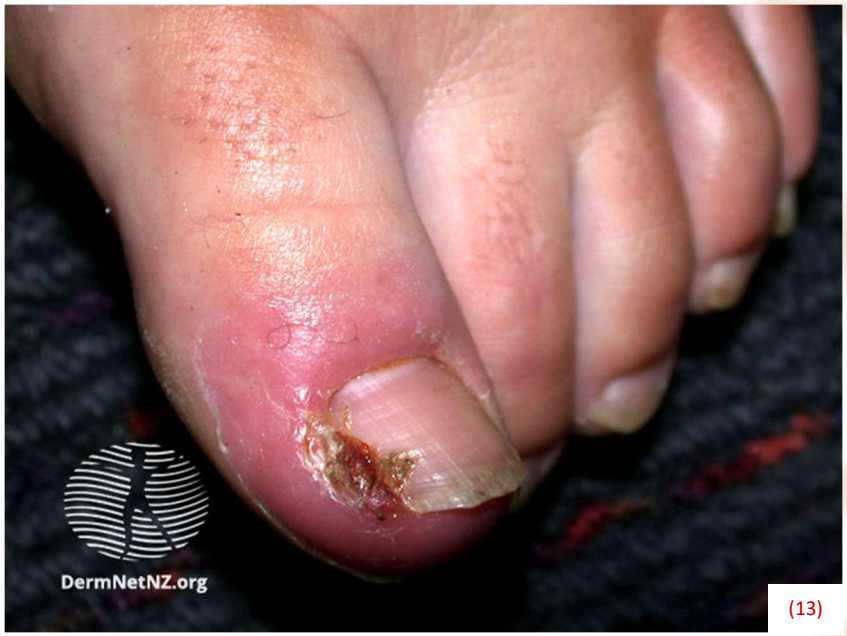
Recommended to cover the lesions for sport

Treatment

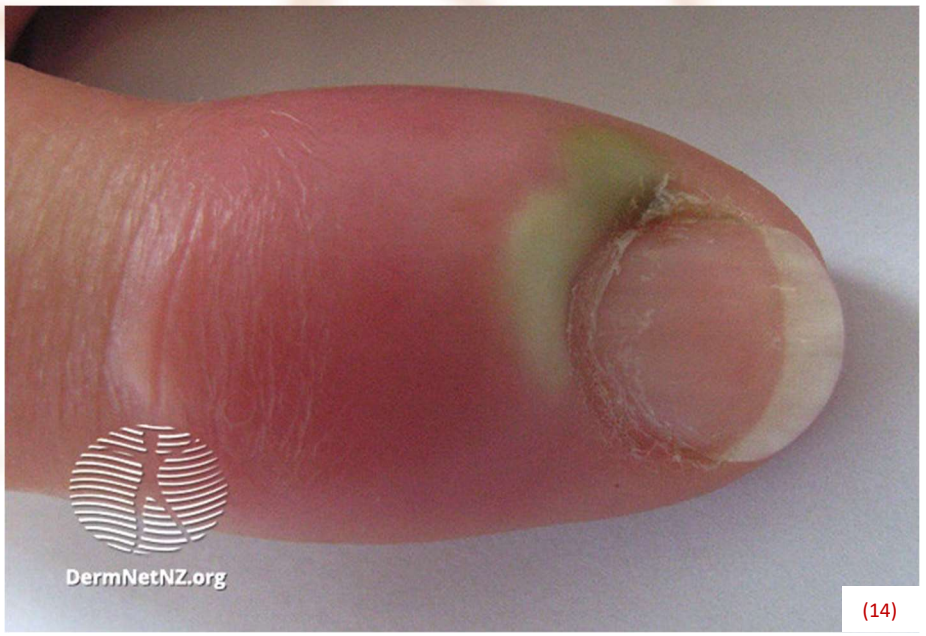
Soak the affected finger in hot salt water several times a day

Topical antibiotics can also be used between soaks

In severe cases, systemic antibiotics may also be needed



(13)



(14)

Cutaneous Infection: Wart (Verruca)

Characteristics/Symptoms (description)

Small round, raised lesion with rough, dry surface

Usually located on the hands or feet

Caused by papillomavirus (HPV)

Warts do not retain the normal fingerprint lines on the hands and feet

*They may also be secondarily infected with bacterial infection

Transmission (ease/method)

Moderate

Direct contact with infected areas or indirectly through contaminated environments (ex: showers)

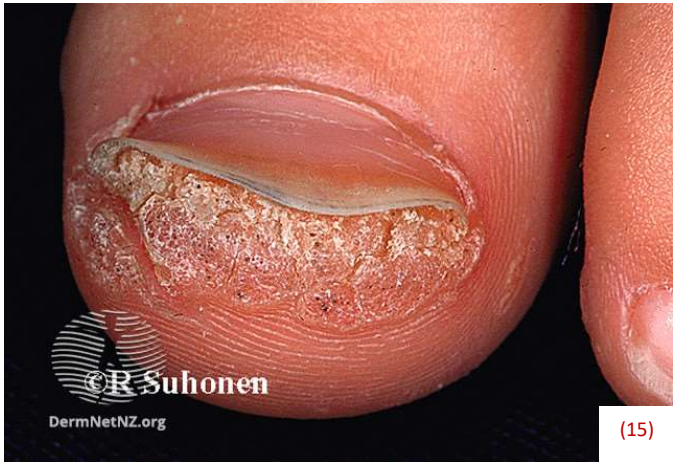
Warts can spread to other areas of the body through autoinoculation from shaving, scratching or other skin trauma

Treatment

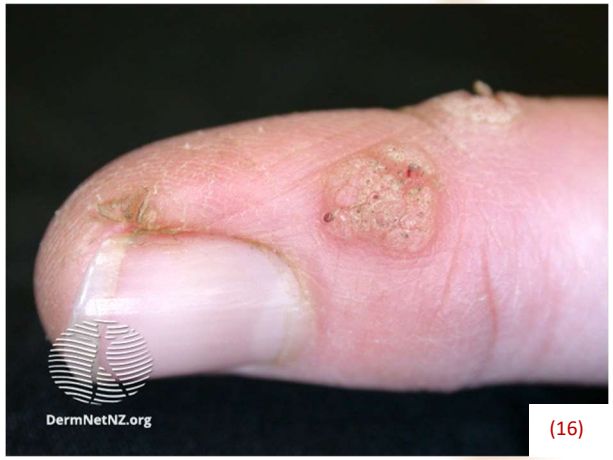
Topical application (Salicylic acid preparation) or liquid nitrogen and electrocautery by doctor

Return to Sport

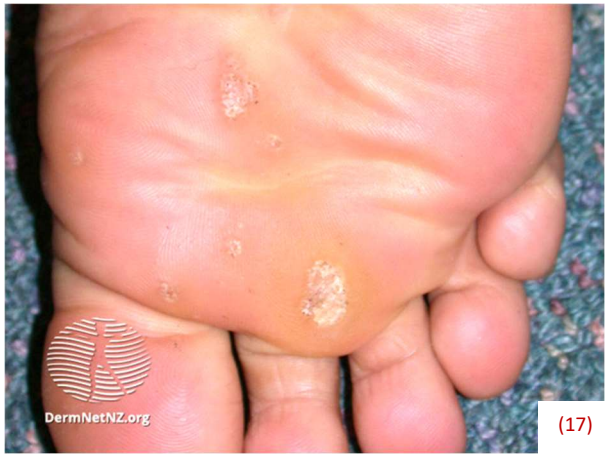
Immediately after starting treatment, but the warts should be covered during sports until they have completely resolved



(15)



(16)



(17)

Cutaneous Infection: Mat herpes/mat pox/cold sores/fever blisters (Herpes gladiatorum)

Characteristics/Symptoms (description)

Maculopapular vesicular rash – raised and/or flat blister like lesions

Typically appears on the 2nd day after contact

Caused by the herpes simplex virus (HSV)

The individual may also develop systemic symptoms: sore throat, and/or low-grade fever

Transmission (ease/method)

High transmission

Skin-to-skin contact

Incubation period: 4-11 days

Virus spreads in the nerve distribution

In 70% of cases, the face is affected

Treatment

Oral anti-viral medication prescribed by a doctor

Return to Sport

At least 5 days of oral antiviral medication

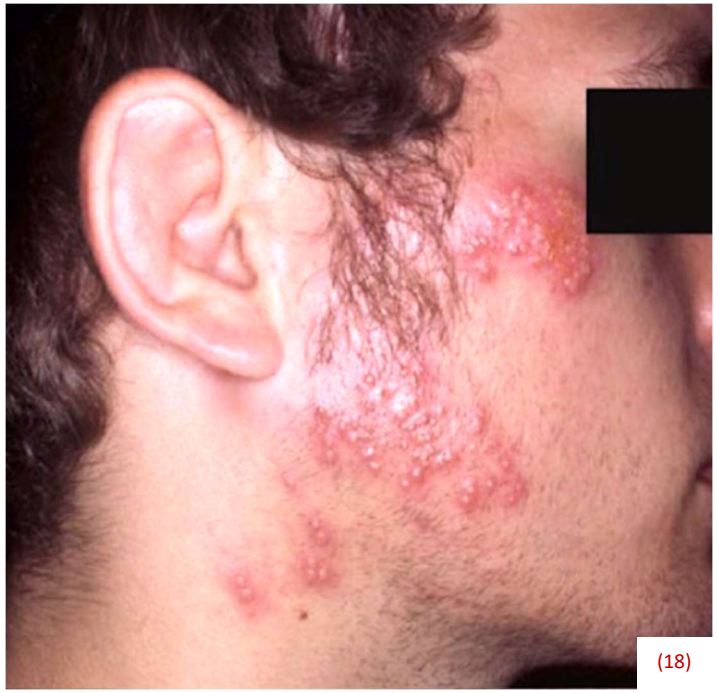
No new blisters/lesions for more than 3 days

No evidence of a secondary bacterial infection

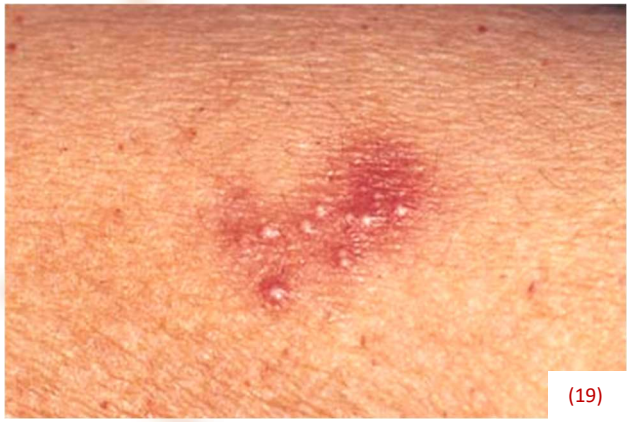
No systemic symptoms

All blisters/lesions must have a firmly adherent scab/crust

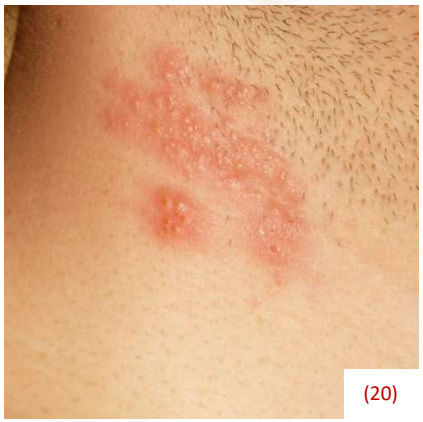
Anyone with active lesions (lesions without firmly adherent scab/crust) cannot participate in contact sports



(18)



(19)



(20)

References

Brukner, P. & Khan, K. (2006). Clinical Sports Medicine (Third Edition, 866-869). McGraw-Hill.

Judo Canada Health Care Team. (2005). Managing Ringworm in the Sport of Judo document.

Peterson, A.R., Nash E. & Anderson, B.J. (2019). Infectious Disease in Contact Sports. Sports Health 11.1: 47-58.

Prentice, W.E. (2010). Principles of Athletic Training: A Competency-Based Approach (Fourteenth Edition, Chapter 28, 856-886). McGraw-Hill.

References for pictures

1. www.skinatlas.com/tcorporis3.htm (accessed August 23, 2023)
2. aapredbook.aappublications.org/cgi/content/full/2003/1/3.129/133_06 (accessed August 23, 2023)
3. https://dermnetnz.org/topics/tinea-corporis (accessed August 28, 2023)
4. https://dermnetnz.org/topics/tinea-capitis (accessed August 28, 2023)
5. https://dermnetnz.org/topics/tinea-pedis (accessed August 28, 2023)
6. https://thefoothub.com.au/athletes-foot/ (accessed August 23, 2023)
7. https://www.healthline.com/health/athletes-foot#pictures-of-athletes-foot (accessed August 23, 2023)
8. https://www.everydayhealth.com/impetigo/signs-symptoms-diagnosis/ (accessed August 23, 2023)
9. https://en.wikipedia.org/wiki/Bullous_impetigo (accessed August 29, 2023)
10. https://en.wikipedia.org/wiki/Bullous_impetigo (accessed August 29, 2023)
11. Author's personal pictures
12. https://dermnetnz.org/topics/impetigo (accessed August 28, 2023)
13. https://dermnetnz.org/topics/paronychia (accessed August 28, 2023)
14. https://dermnetnz.org/topics/paronychia (accessed August 28, 2023)
15. https://dermnetnz.org/topics/viral-warts (accessed August 28, 2023)
16. https://dermnetnz.org/topics/viral-warts (accessed August 28, 2023)
17. https://dermnetnz.org/topics/viral-warts (accessed August 28, 2023)
18. https://wikism.org/Herpes_Gladiatorum (accessed August 28, 2023)
19. https://www.craigdailypress.com/news/possible-herpes-gladiatorum-case-taken-seriously-moffat-county-school-officials-say/(accessed August 23, 2023)
20. https://www.triage.com/health/en/patient/herpes-gladiatorum (accessed August 23, 2023)