

Updated version (20/05/2015 – AVG) see: [www.travelhealth.be](http://www.travelhealth.be)

## SKIN CARE, INSECT BITES AND STINGS

### Sun

The closer you get to the Equator, the more intense sunlight becomes. Sunbathing in the tropics has to be done in moderation. Protective clothing and hats are recommended. Apply sun cream with high sun protection factor (30 or more) to exposed skin regularly (every two hours) and carefully. Apply sun cream after bathing and avoid long water exposure since sun stroke will be imminent in spite of reduced heat feeling. Avoid perfumed sun creams and check whether or not used creams or medication can cause "sun allergy" (photo-toxic or photo-allergic reactions).

We would like to refer to point 5 of the European cancer code: avoid excessive exposure to sun and sunburn during **childhood** (increased risk of melanomas in later life). Do not take a course of sunbed sessions before going on holiday as the sun tan obtained through UV-A does not give any extra protection against the natural UV-rays.

When using sun creams and insect repellents based on DEET, recent studies have shown that DEET reduces the effectiveness of the sun cream, but that sun creams do not have a negative influence on the effectiveness of DEET. It is advisable, therefore, to apply the insect repellent (DEET or another repellent) with the sun lotion and then to take additional precautions to protect against UV (e.g. a sun cream with a higher protection factor).

Light **sunburn** heals spontaneously. A cold shower can provide relief. Common after-sun or rich creams are often not enough in cases of real burns. It may be necessary to locally apply a cortisone cream (preferably after consultation with a doctor).

**Sunstroke** is a distinct extensive type of burn due to prolonged exposure to the sun.

**Prickly heat (miliaria rubra)** is a frequent problem in warm and humid regions. It is an intensely itchy rash caused by blockage of the sweat ducts by dead skin cells. More sweat leads to a swelling of the sweat gland channels and sweat retention vesicles which in turn can lead to a skin rash local inflammation. Usually there are only a few red "pearls" visible, mainly in body folds around the waist and on the shoulders. It mainly affects small children. The only remedy is regular cold showers (preferably without soap), keeping the skin dry with menthol talcum powder, and wearing light cotton clothing. For the itching (and the additional infection caused by scratching) antihistamines (anti allergy tablets) can be taken.

**Wound infections** are a frequent and often underestimated problem for travellers to developing countries. Insect bites that have been scratched open or untreated wounds and injuries are frequent.

Minor wounds on the lower leg or the foot nearly always get infected (contamination with bacteria); particularly if no special attention is paid to them.

We cannot emphasise strongly enough that any wound, however minor, should be carefully cleaned, washed and disinfected. It is not unusual for an infected wound to take many weeks to heal, even with good care upon return from a trip.

A powerful antiseptic ointment<sup>1</sup> is thus a vital component in the most basic home medicine kit. Mercurochrome is totally unsatisfactory as an antiseptic. A common mistake is to use volatile antiseptics (such as alcohol), which do not provide any long-lasting disinfection. The conventional adhesive plaster strip often does not give enough protection, and is not advised for foot wounds. **An antiseptic cream or ointment** (remains longer) preferably covered by a sterile gauze, should be changed once or twice daily (great caution is advised when using it on sun-exposed skin, as photosensitization is very common!). The premature formation of a scab can still allow the wound to fester, which in turn delays the healing process. Only when the wound has become relatively painless can a scab be left alone. If the wound further develops in spite of good local care, and certainly if the inflammation and swelling around it increase, there should be no hesitation in starting a suitable antibiotic treatment (penicillinase-resistant penicillin such as oxacillin, cloxacillin, dicloxacillin and flucloxacillin)<sup>2</sup>. If there is a wound on the leg, it is advisable to rest with the leg up. It is well worth going over these points during a travel consultation, especially for people who are travelling for a long period in primitive conditions.

In warm and humid areas the variety and number of insects is enormous. Mosquitoes, flies and other biting insects can cause a great deal of discomfort, not only because the bites cause local reactions, but also because some insects transmit infections, such as malaria, dengue, leishmaniasis, sleeping sickness, etc.

Local skin reactions usually diminish in proportion to the length of time spent in the tropics. Some people, however, develop hypersensitive reactions. “Culicosis bulosa” is an hyper allergic reaction; an severely itching blister, filled with clear liquid, appears on the site of the insect bite.

Preventive measures against mosquito and tick bites also partly apply to other insects (repellents).

A strong ointment based on corticoids is recommended to avoid scratching **itchy insect bites** into wounds – to be applied preferably (mostly one time) in the evening in order to avoid additional fotoallergic reaction through sunlight – not to be used (or a little bit) in the face.

An oral antihistaminic<sup>3</sup> is useful for alleviating the symptoms of itching. Great caution is advised when using antihistamine ointment<sup>4</sup> on parts of the skin exposed to the sun, as photosensitization is very common. Some dermatologists recommend potent corticosteroid-based ointments<sup>5</sup> for self-treatment of bothersome allergic reactions but these should never be applied on the face.

**Blister beetles** are insects, whose bodily fluid contains substances, such as “*Cantharidine*” and “*Pederine*”, which can produce blisters. By night the beetles are attracted to light, thus guiding them to humans. When the insect is crushed on the human skin, local irritation (redness, swelling, burning feeling), as well as blisters, will appear after a few hours.

The clinical image is one of burns. Sometimes “kissing lesions” are seen at the elbows or knees. Rubbing the toxin into one’s eyes, may cause irritation or the “Nairobi eye”. The skin should first be rinsed abundantly

and then disinfected. Finally the same skin care as for burns (such as a cream with silver sulfadiazine, e.g. Flammazine®) may be applied.

Skin injuries caused by *Cantharidine* heal almost entirely without leaving scars. Injuries caused by Pederine become visible only after 1 or 2 days, the redness is more serious and may persist a couple of months.

**The larvae of certain flies** use humans as host. In Africa, some flies lay their eggs on, among other things, drying laundry. The larvae subsequently burrow into the skin, in order to develop there. The lesion that they produce resembles a boil, which is more itchy than painful, and at its centre two black spots can be seen (respiratory pores) instead of yellow pus.

Laundry that has been hung out to dry in the tropics is therefore best ironed with a hot iron in order to destroy larvae. In South America some fly larvae get directly on to the skin via mosquitoes.

People who run around barefooted run a greater risk of insect bites, wounds and parasites that get into the body via the skin of the feet, such as ancylostomiasis, strongyloidosis, sand fleas and larva cutanea migrans.

The latter are two typical **skin parasitoses**:

- **Tungiasis**: after fertilization, the female sand flea or jigger (*Tunga penetrans*) penetrates the skin, especially at the feet and under the toenails. She burrows into the epidermis and continues to grow. After a few weeks a pea-sized, initially itchy and then painful lesion appears resembling a boil but with a central black spot. With a little practice, the adult fly can be completely removed by carefully peeling away the epidermis with a needle or a sharp instrument. Subsequent disinfection of the wound is of the great importance.
- **Cutaneous larva migrans** is caused by parasites that accidentally infect humans, usually hookworms from dogs or cats. The parasite gets into the skin when this gets in contact with mud or sand fouled with animal excrement e.g. on the beach (only on dry sand but not on the damp part of the beach, below the tide line where it is best to wear shoes and sit on a towel), around swimming pools or by running around barefoot. These parasites usually die after penetration, though some survive and slowly migrate through the epidermis, thereby causing severe itching, threadlike lines of skin rash, mostly on the hands and feet, and sometimes on the buttocks and thighs. This requires specific treatment.

Irritation, mostly limited to local reactions of the skin, can also be caused lice, fleas, bedbugs, scabies, ticks, leeches and hairy caterpillars.

When coming in contact with **jellyfish**, rinsing the skin with vinegar (5-8% acetic acid) for about 30 minutes is recommended. A topical corticosteroid cream is then applied.

**Spiders, scorpions and snakes** are most frightening but they only represent a small risk.

- **Scorpions** are usually most active at night and walking around barefoot after sunset is not a good idea. When you get up in the morning, check your shoes for scorpions that might have crept into them during the night. A scorpion sting is quite painful, but symptoms are usually restricted to a local reaction. In some countries, however, for small children, the sting can be fatal.

- **Snakes** hide mainly in dense undergrowth and under stones, sometimes in termite mounds or damp, dark garden sheds, etc. After a rain shower snakes often seek out open spaces. They normally stay away from humans and they bite only in self-defence. About 375 of the approximately 2700 snake species are venomous. Bites by venomous snakes are not always accompanied by an actual injection of venom and symptoms of poisoning. The interval between bite and eventual death is very variable. The prognosis depends on many factors, including the general condition of the individual and the treatment.

### **Prevention**

Never walk through long grass, or if you do have to walk across pastureland:

- Wear sturdy high boots.
- Make the ground vibrate by treading heavily or by banging with a stick in front of you.
- Use a torch when it is dark.
- Avoid putting an unprotected hand in holes between stones or rocks.

### **Treatment**

- Whatever you do, do not panic panic;
- Seek suitable medical help as quickly as possible;
- Avoid dangerous procedures such as incision, sucking out the wound, tourniquets, etc. The use of the Aspivenin® suction device for snakebites is very controversial, as in animal trials it only sucked out 30% (at best) of the venom, even when used within three minutes after a snakebite.
- Immobilisation and a lymphatic bandage is the only recommended technique (do not tie off, wrap a wide bandage tightly around the affected limb for a maximum of 1 hour = never do this if you can not make it to a hospital within 1 hour)
- If possible, the dead snake should be brought in for identification (but beware of recently killed snakes since they still have a bite reflex);
- Treatment with antivenom is necessary only in the event of specific symptoms of poisoning such as haemorrhage, local tissue necrosis or paralysis. Antivenom is still effective, even when administered at a late stage. Addresses of Poison Control Centres can be found on the following websites: [www.toxinfo.org/antivenoms](http://www.toxinfo.org/antivenoms) & [www.vapaguide.info](http://www.vapaguide.info). It is not possible to take antiserum with you if the correct storage temperature cannot be continuously guaranteed, and if there is no one available who is competent and knowledgeable enough to administer the antiserum (more than 50% risk of allergic reactions).

**Do not touch dogs or cats because of the real danger of rabies in tropical countries (equally in large towns). Be vigilant especially with children around.**

1. **Antiseptic ointment/cream:**
2. **Antibiotic for skin inflammations:**
3. **Antihistamine tablets:**
4. **Antihistamine cream:**
5. **Cortisone ointment:**