

# Case report: Tracing dermatitis triggers

---

## Activity Description

### Content & Goals:

Starting point is the nickel allergy of Thelma's friend. Substances that may lead to dermatitis can be found in all kinds of surroundings: at home, at school, in leisure activities or at the workplace. If people know these substances and their occurrence, they will be able to protect themselves against their impact. The pupils are supposed to develop awareness for substances triggering dermatitis, for the places where they can occur and for the possibilities to avoid their negative influence. For this, the pupils will invent such situations in their real environment and design a case report on this.

### Realization:

- Can be integrated into classroom lessons
- Cross-disciplinary lessons are possible (Biology, English, Computer Science/Data Processing/Word Processing)
- International links are possible

### Variations:

Team work; (digital) story telling possible in some variations (e. g. paper-pencil story, wiki, photo story); optional: poster design

### Requirements of material and media:

- Learning texts on the learning platform
- Prepared working sheet

### Time requirements:

- **Preparation time:** low time need (up to 1 hour)
- **Need of class time:** at least 2 double periods (2 x 90 mins.)
- **Wrap-up time:** medium time need (2 to 3 hours)

## Explanations and additional information

### How to realize this activity

Dermatitis can be caused by endogenous and/or exogenous factors. In this exercise, the focus will be on the exogenous factors for the development of dermatitis, as e. g. irritating substances and allergens.

The pupils form small groups. Every group will work on a different area (1. home, 2. school, 3. free time activities, 4. workplace) and the development and avoidance of contact dermatitis in this field. They will construct a fictitious case report.

Hint: In vocational schools, the focus may be on the field of work. The students could study different professional fields.

The focus is on the question which potential triggers for dermatitis the pupils can meet in which situations, and how these potential dangers can be avoided.

## Sources of information

Sources of information are basically the learning texts about dermatitis on the learning platform. The endogenous and exogenous triggers of eczema can be found especially in the informative subtexts. The following sources of information may be also helpful for this activity:

List of the most frequent allergens which can cause allergic contact dermatitis:

[http://eczema.dermis.net/content/e02causesof/e457/e458/index\\_eng.html](http://eczema.dermis.net/content/e02causesof/e457/e458/index_eng.html) (Date: 25.04.2008)

List of the most frequent irritants which can cause irritant contact dermatitis:

[http://eczema.dermis.net/content/e02causesof/e457/e459/index\\_eng.html](http://eczema.dermis.net/content/e02causesof/e457/e459/index_eng.html) (Date: 25.04.2008)

Site about endogenous causes for dermatitis:

[http://eczema.dermis.net/content/e02causesof/e441/e442/index\\_eng.html](http://eczema.dermis.net/content/e02causesof/e441/e442/index_eng.html)

A site of the British government institution "Health and Safety Executive" about skin health at work (April 2008). A very informative site with a lot of links.

<http://www.hse.gov.uk/skin/>

Site of the Canadian Center of Occupational Health and Safety (CCOHS): information of health hazards at work and safety measures, grouped by professions (but not with a special focus on skin):

[http://www.ccohs.ca/oshanswers/occup\\_workplace/](http://www.ccohs.ca/oshanswers/occup_workplace/)

## International links

The pupils can discuss this project in the large international group and present their constructed case reports. This can be done in English, e. g. via an audio conference.

## Working sheet

As an additional resource, we created a working sheet which summarizes again the most important exogenous factors involved in the development of dermatitis. This working sheet can be used as follows: It can be filled in completely and then utilized by the pupils as a resource of information. Or it can be left empty and then filled in by the pupils themselves related to a work assignment.

## Working Sheet

### Exogenous dermatitis triggers: allergens and irritants

Dermatitis can be caused by various factors. Among them are various substances we get in touch with in our environment (at home, at school, during free time or at work). They can irritate and damage our skin.

#### ALLERGENS

Some substances – so-called allergens – can cause allergic contact dermatitis.

##### Triggers (allergens) are

Metals: predominantly nickel, but also cobalt and caliumdichromate

Fragrances, dyes and preservatives

Formaldehyde

##### These can be contained e. g. in...

Jewellery, buttons, zippers, wristwatches, sidepieces of glasses

Cosmetic products, perfume, detergents, cleaning agents, hair dyes, colouring agents in (henna) tattoos, printing ink

Disinfectants

#### IRRITANTS

Other substances irritate the skin so strongly when in frequent contact with them, that they can cause so-called subtoxic-cumulative contact dermatitis. (They do not cause allergies!)

##### Examples for irritants:

water

soap

shampoo

cleaning agents

solvents