



# How to dress warmly and safely in winter

In conditions of cold, wind and ground surface icing  
(Light version of layering concept)

E-mail me to receive  
the electronic version of this  
presentation!  
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## Layers and natural (or sport synthetics) materials to INSULATE your body and KEEP COMFORT

- When you are wearing very warm, during movement you can start to sweat. Once your clothes are soaked with sweat, it could lose up to 90% of its insulating qualities.
- In this regard, it is very important to use **several layers** of clothing and **remove moisture** (natural and special sport materials possess **good evaporative capacity** from a surface of your body by transporting it to next layers.
- There are 3 main layers:
  - 1) «Next to skin» - base layer
  - 2) Insulator – warmth core layer
  - 3) Shield layer



# 1) «Next to skin» - base layer

- Start your layered clothing by wearing a **breathable** layer of clothing, which might include a t-shirt and shorts. Cotton clothes and moisture grasping clothes are the best option. This layer will help pull moisture away from your skin, thereby keeping you dry and comfortable.





## Additional optional

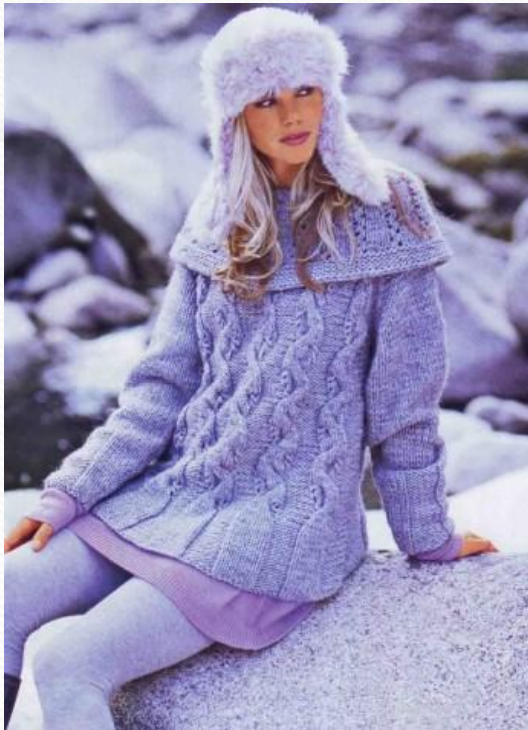
**layer** Next, put on a light layer of clothing, which will serve the purpose of an insulator. Thermal pants and shirts are the best option. Apart from being lightweight, these are excellent insulators. This layer of clothing is important as it keeps body heat confined to the body of the wearer.





## 2) Insulator – warmth core layer

- On top of the thermal wear, add on a thick layer of clothes. Sweatshirts, sweaters, pullovers and down sweaters are some of the options you can use for top layer clothing. They should be long enough to cover your waist properly.
- Jeans and corduroy serve the best when it comes to keeping your bottom warm. This layer of clothing is basically worn to keep away the cold air from your body, thereby protecting you from frost and chill. Do not forget about insulating capacity of air, so loos-fitting jeans would keep your warmth better, than tight ones.





# 3) Shield layer

- Once the above is worn, turn to your winter coat. Wear a thick and water proof layer of winter coat. The length of the coat will depend on the other clothing and the fabric you are putting on that day



N-3B Polar Parka





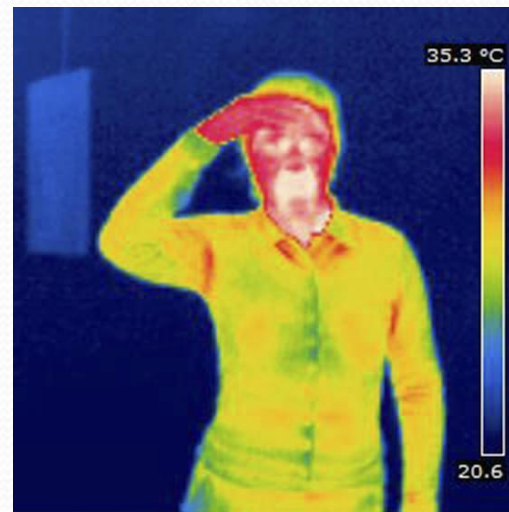
# Wear your hat since ca 40% of heat loss happens via head

- While most of us put on layer of clothing for protecting our body, it is our head that often goes ignored or unnoticed. You should not forget to protect your head from the sharpness of the cold weather. Remember, you can lose a lot of heat from your head and neck. Therefore, it is essential for you to wear a cap and wrap a scarf around your neck properly.



Nature reserve Kerzhensky,  
Volga region, Russian Federation,  
February 2012

Just -30°C ;)





# Covering up your feet and

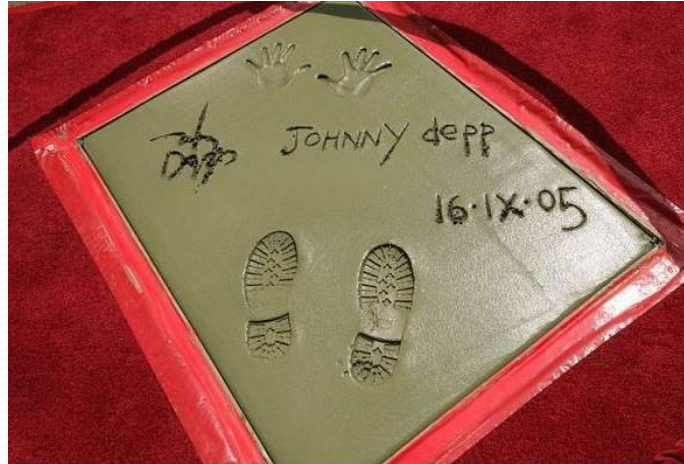
hands... is quintessential. If you don't insulate your hands and feet, chances are that you might get affected with frostbites. Wear thick socks and closed toe shoes to protect your feet. Mittens or gloves can be used to protect your hands.





# Shoes and insoles

- Prefer the shoes with thick treads—they will save you from sliding and, partially, from dirt.



- You can use several inner soles per shoe, one of the best variants are insoles from thick felt made of sheep wool.



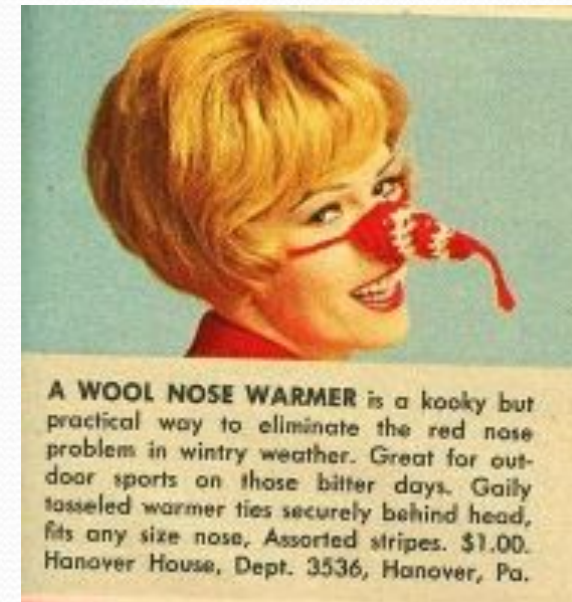
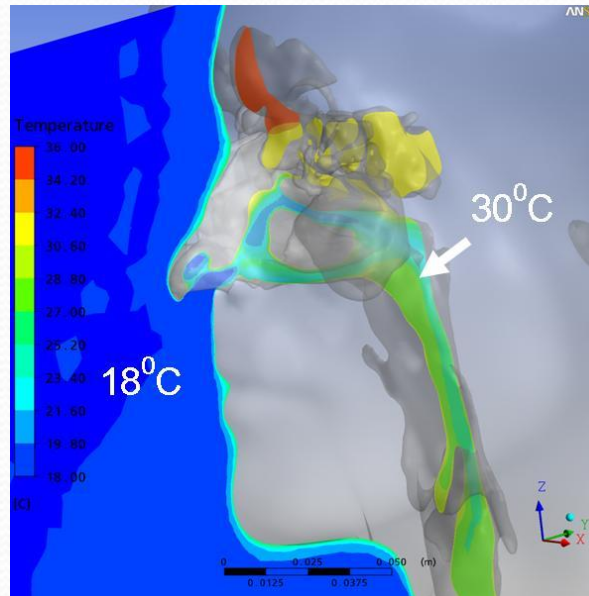
## In addition: Face skin

What to do with the only open area – your face?

Just apply a thin layer of cream with the OILY basis, 20-30 mins before leaving. It could be an oily nourishing night cream or a weather protection cream, normally produced for children.

Ensure that your cream is not a water-based one, not moisturising, because it can promote freezing your face skin.

Breathe with your nose, not mouth. Noses are evolutionary designed in such a way that they heat air on its way during your inhale. And the colder air is inhaled the more intensive 'inner conditioner system' works.





# Stay warm!



Oymyakon, Sakha Republic,  
Russian Federation



Winter mean temperature is on the termometer





Так вот куда  
исчезает второй носок!



"You know, 90 percent of your body heat leaves through your head."





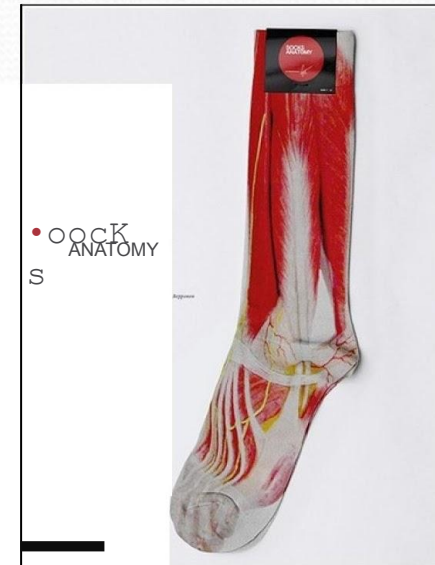
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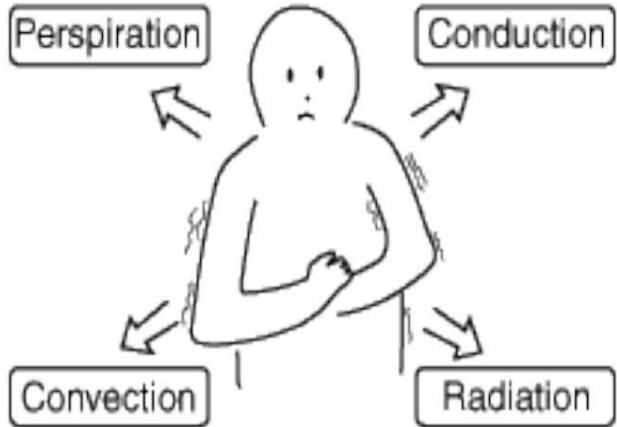
СОШЕЛСЯ



IF SHOES COULD KILL.COM







Target cooling rate = 100 watts

