English for Sek I, Sek II

**Cultural Phenomena**Hygiene (18)

14:45 minutes  
Two-track audio

1. **What do you know about the Middle Ages and about hygiene in the Middle Ages?**

In the Middle Ages, hygiene was very poor. People weren’t aware of how important hygiene was for their health, which led to severe epidemics. In the 14th century, the plague wiped out entire cities. 25 to 30 million people died of the so-called «Black Death».

1. **How was the level of hygiene in the 19th century?**

The importance of hygiene in medicine was still unrecognised. It wasn’t known yet that dirty hands could transmit diseases. For example, many women died after giving birth. In 1846, the Viennese doctor Ignaz Semmelweiss realised that doctors’ dirty hands were causing these tragedies. He began to wash his hands before treating patients and ordered his colleagues to do the same. The number of deaths decreased dramatically. In the same century, the scientists Louis Pasteur and Robert Koch made an important discovery: Under the microscope, they found miniscule organisms, which could live on skin and caused serious illnesses: viruses and bacteria. Both researchers noticed that many of them could be killed with alcohol.

1. **What rules of hygiene does the Kantonsspital Winterthur have?**

The nurses and other personnel disinfect their hands regularly with a solution consisting of 80 per cent alcohol. This kills viruses and bacteria, which are mostly transmitted by touch. In the operating theatre, there is no working without a mask, cap, freshly washed clothes and sterile gloves. Before the operation, the skin is disinfected. A plastic sheeting provides extra protection against contamination. In that way, viruses and bacteria cannot get from the skin into the operation wound. The mask prevents drops of saliva contaminating the wound as the doctors work.

1. **Why can gastric infections occur in a hospital – despite all hygienic measures?**

Marco dalla Valle, consultant for hospital hygiene, explains: Where a lot of people are in contact with each other, there is a high risk of infection. A lot of people are in close proximity, and viruses or bacteria are easily and quickly transmitted. When people contract a disease outside a hospital and then fall ill, it isn’t that bad. But in a hospital, the situation is different because the personnel and the patients can get sick, and a local epidemic can break out.

**Hygiene**

1. **Write down each single step of sterilising the surgical instruments in a hospital.**

The new central sterilisation unit in the Kantonsspital Winterthur cost eight million francs. With 10’000 operations per year, there is a lot to do!

Step 1: The surgical instruments are rinsed, which is done by hand.

Step 2: Now it’s time for heat. Apart from alcohol, heat plays a major role in the destruction of viruses and bacteria. Only very few pathogens survive the first wash at 94 degrees.

Step 3: The surgical instruments are checked for damage. Plenty of patience is needed. Cracks are dangerous because impurities can lodge in them. Impurities can cause infections in a patient, which means more time for healing and a longer stay in hospital.

Step 4: The sterilisation proper at 134 degrees. The instruments are already packed up, the heat has its effect anyway. No pathogen has survived, the instruments are sterile.

1. **Describe the rules of hygiene in the kitchen of the hospital.**

The hands are disinfected before work starts, everyone wears latex gloves. The chopping boards are classified by colour: red for meat, green for fruit. Raw chicken can be a carrier of salmonella. These bacteria cause problems in the intestinal tract. The heat from cooking kills salmonella. So, fruit mustn’t get in contact with raw chicken. Before being washed, kitchen equipment such as a mixer are unscrewed. A single dirty rubber washer could have dreadful consequences. In the cold store, a sample of each meal is kept for a whole week, the so-called reference meal. If a patient comes down with diarrhoea, you can see whether it was caused by food from the hospital kitchen.

1. **Why are sewage plants important?**

In faeces, there are coli bacteria. They support the digestive process. But if they get into drinking water they can lead to serious outbreaks of diarrhoea. That is why sewage plants are so important. But they are expensive. The rich West has been able to conquer epidemics like cholera and typhus mainly by making major investments.

1. **Explain the level of hygiene in poor countries.**

In poor countries, there are no sewage plants or they are insufficient. That is why drinking dirty water still leads to severe epidemics. In 1992, thousands went down with cholera in San Salvador. In Bangladesh, education and money for sewage systems are not available. Faeces flow unfiltered into the river in which mothers wash their babies and from which people fetch water.

1. **In your opinion: What is part of hygiene in everyday life?**

(individual answers)

1. **What do you expect of other people concerning hygiene? What do you consider too much?**

(individual answers)

**Hygiene**

1. **What consequences does lacking personal hygiene have in the professional life, in private life?**

(individual answers)