

COLD!



**The story of
feverish foreheads, runny noses,
and how little heroes defeat nasty
viruses and evil bacteria**

ARNE NORLIN


Sjukvårdsförvaltningen
(Healthcare Department)
Strama Stockholm & Medicinsk
Fortbildning (Strama Stockholm &
Medical Training)
Box 17533, 118 91 Stockholm

©Text Arne Norlin
Medical Facts Astrid Lundevall/
Strama Stockholm
©Illustrations Cajsa Wessberg,
pages 1, 6 – 9 and 18 – 19
Agnes Holmberg-Lundevall,
pages 3, 10 – 17 and 20

Graphic Design Astrid M Källström/
Medicinsk Fortbildning

Printed in Sweden 2014, 2015

ISBN 978-91-637-5006-9

 Miljömärkt trycksak, 341 142

COLD!

The story of feverish foreheads, runny noses, and how little heroes defeat nasty viruses and evil bacteria

Text
Arne Norlin

Illustration
Cajsa Wessberg and
Agnes Holmberg-Lundevall



The book you are holding ...

is intended for children who read by themselves or with an adult. The writer of the text is Arne Norlin, known for the “Halvan” books.

The book teaches the reader about colds, bacteria and viruses, the body’s immune defence, vaccinations, and antibiotics.

Strama Skåne is working against unnecessary use of antibiotics, and to slow down the development of resistant bacteria. This book was developed by Strama Stockholm and Medicinsk Fortbildning (Medical Training) at Stockholm County Council’s Healthcare Department. This edition was printed by Strama Skåne in collaboration with Kunskapscentrum för Barnhälsovård i Region Skåne (Paediatrics Knowledge Centre in Region Skåne).

Have a nice read!

You can find more information on
www.antibiotikaellerinte.se

Foreword

Antibiotics are fantastic, though not appropriate for common colds.

Alexander Fleming and others discovered penicillin in 1928. When it became available to the public after the Second World War, many more survived severe infections.

Antibiotics can still save lives in cases of severe bacterial infections, such as meningitis, sepsis and pneumonia. Without effective antibiotics, surgery, care for premature babies, and cancer treatment would not be possible.

Unfortunately, antibiotics are still overused, routinely, or “just to be sure”. There are several risks associated with this. It speeds up the development of, and improves bacteria’s resistance. Treatment also disturbs the body’s natural balance of useful intestinal bacteria, and can give side effects like diarrhoea, rashes, and fungal infections.

We must economise with antibiotics if they are to remain useful. Most airway infections heal of their own accord!

Malmö, September 2015

Charlotta Hagstam
Strama Skåne

Torsten

Cold!

Torsten didn't feel very well when he woke up on Wednesday morning. He had a sore throat, and his head felt heavy. Even though he'd slept all night, he was still so tired he could have fallen asleep again right away. Dad came to feel his forehead.

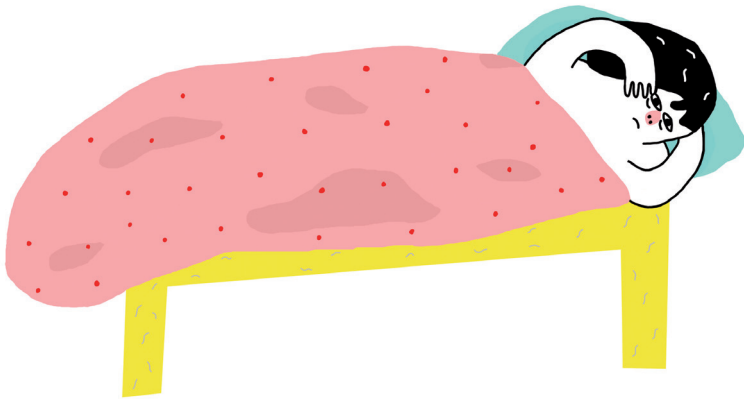
"I'll get the thermometer," he said.

It showed 38.4.

"You'll have to stay home from school for a few days," said Dad.

He put a glass of water on the table next to the bed. Torsten drank almost the whole glass.

"What about the game on Saturday? I have to be there!"



Dad shook his head.

"I don't think there'll be any football for you on Saturday."

"Is there no medicine? To make me well again straight away?"

Dad shook his head again. Then, he went to get a book that he'd borrowed from the library.

"Read this. You'll understand."

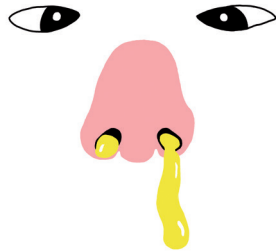
But Torsten didn't do any reading that day. He just slept.





Torsten said a quiet “no” when his big sister Jenny came into his room in the afternoon to ask if he wanted to play computer games with her. And he could only manage half of the tasty toasted sandwich that Dad made especially for him, even though it was his favourite.

When Torsten woke up on Thursday morning, he worked out in his head that he had slept on and off for 17 hours straight. He wasn’t as hot anymore. Instead, snot was running from both his nostrils. After a while, there was a big pile of used tissues in the bin by the bed.



He still didn’t have the energy to read, watch TV, or play on the computer. But he listened to some music on his mobile phone – and stumbled to the kitchen to have some dinner with Dad and Jenny.

On Friday morning, Torsten felt much better. He got up, made hot chocolate and a sandwich. He brought the cup and plate, the book that Dad had given him, and the duvet from the bed to get cosy on the living room sofa.

Then, he started reading *The Cold Book*.

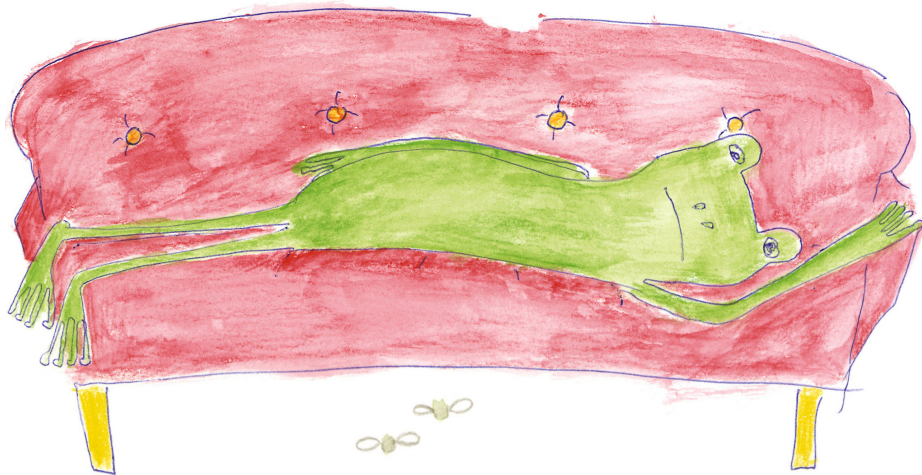
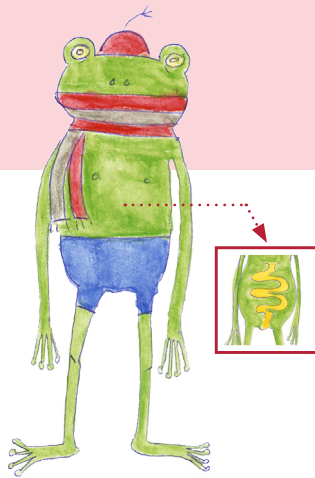


THE COLD BOOK

Bacteria

Bacteria are tiny. So tiny we can't see them with the naked eye. They're actually everywhere – in the sea, the forest, animals, and inside our bodies. We have the most bacteria in our tummies and bowels.

Most bacteria are good, and help to keep us well. They protect us from other bacteria that can make us unwell. Tonsillitis, pneumonia and ear inflammation are some illnesses that are caused by bacteria.



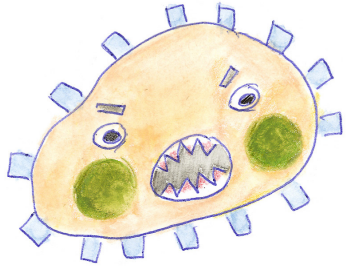
Viruses

Colds are caused by viruses, which are even smaller than bacteria. They're so small they can only be seen through really strong microscopes.



There are hundreds of different cold viruses. That means that you can be infected by one virus one week, and another one a few weeks later. Colds are more common in the winter. Stomach illnesses, and children's diseases, such as chicken pox and measles, are also caused by viruses.



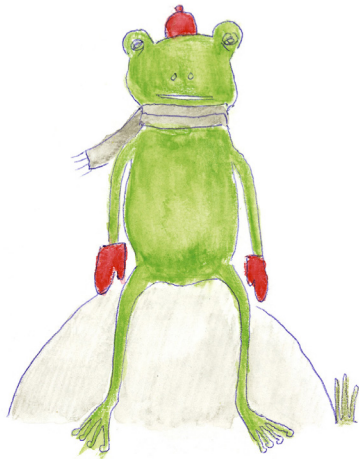


The Immune Defence

The immune defence is the body's own defence against bacteria and viruses. The white blood cells are the body's soldiers. When they meet viruses or bacteria that the body doesn't recognise, they try to fight them. Often, they find and kill the dangerous intruders.

White blood cells can learn to recognise the intruders, and stop similar viruses and bacteria the next time, to make sure the body doesn't get ill.

That's called being immune. That's why we can't get exactly the same cold twice in a row.



Vaccination

You can get vaccinated against certain viruses and bacteria. You get an injection with a tiny, friendly dose of it. It means that the body learns to recognise the infection. Thus, you become immune, and can't be infected and fall ill.

There is no vaccination against common colds. The body can fight them by itself.

When you were little, you were vaccinated against a lot of diseases at the child welfare centre, including measles, mumps and German measles.

Influenza is a tough winter disease, and when it's on its way, it is recommended that old people get vaccinated against it.

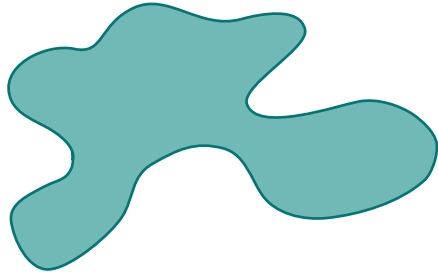




Who Gets Colds, and Why?

Viruses are transferred from one person to another, through the air, or when we touch each other. It's called being infected. For viruses to make us ill, they also need to get inside us, through the nose or our mouth for instance.

Therefore, it's important to wash your hands often, when you've been to the toilet, and before you eat.



Use your own towel. Don't pick your nose. Sneeze into your arm, not into your hand. Use paper tissues. You can throw them away afterwards.

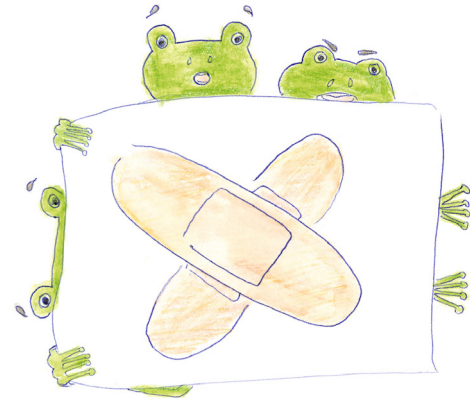
The more people you see, the greater risk you run of being infected. A person with a cold is more likely to infect others just when he or she is starting to become ill. Therefore, you should stay home when you start to feel unwell.

Are Colds Dangerous?

Answer: No!

Small children at preschool, who haven't yet built up their immune defence, can get several colds per month. Then, when we are older, we don't get colds as often.

A normal cold lasts for about a week. Sometimes, you keep coughing for a few more weeks, but that kind of cough is not dangerous or infectious.

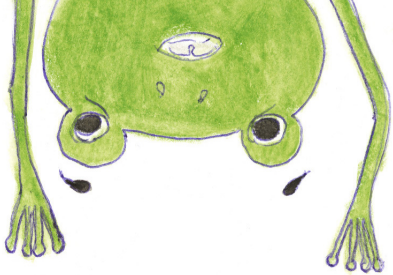


Colds and Medicine

Common colds end of their own accord, and there is no medication to treat them. The body deals with the infection by itself.

We know that viruses and bacteria struggle to survive when the body temperature is high.





Fever is a way for the body to defend itself. You can take medicine to reduce the fever if you feel so unwell that you can't drink or eat.

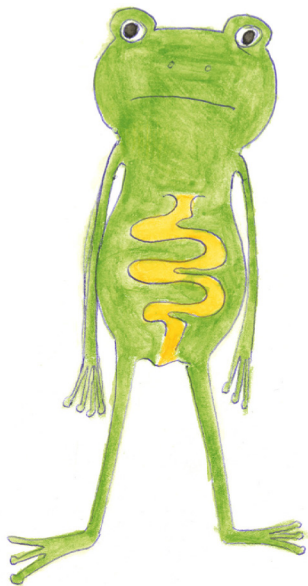
But there are bacteria that can make people very sick. Pneumonia is one example. You need to take a special medicine for it, called antibiotics. One common type is called penicillin. Antibiotics help the body to fight bacteria by weakening, injuring or killing them.

Antibiotics Aren't Always Good

Antibiotics do, unfortunately, kill many bacteria in the body, even good ones, like the ones in the tummy. Therefore, you can get diarrhoea, runny poo, after taking antibiotics.

It can also take a long time for the body to recreate the good bacteria, so there is always a risk that you will fall ill again.

It's best if the body gets to fight the illness itself. Antibiotics also don't help against viruses. You can't cure colds with antibiotics.



Resistance

There were bacteria on earth long before there were people and animals. Over time, they have become good at surviving in all sorts of situations. One example is when we try to fight them with medicine, such as antibiotics. Then, they can develop resistance against the antibiotics. The bacteria have become resistant.

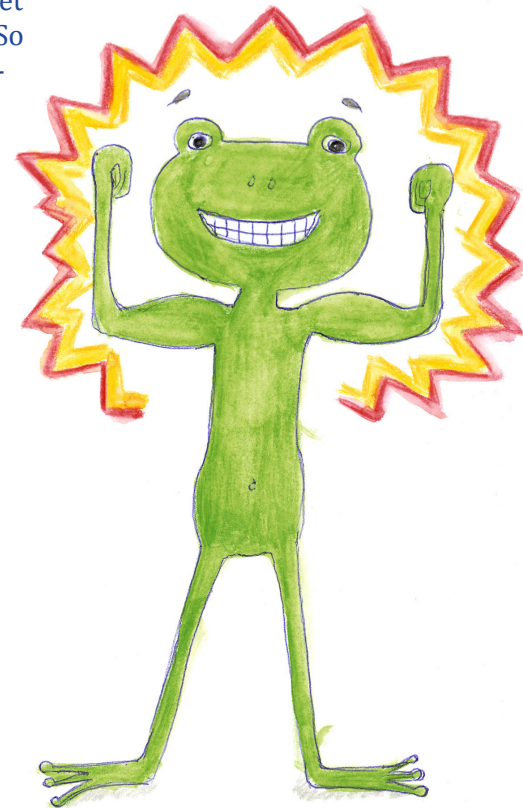
If we use a lot of antibiotics, we'll get more and more resistant bacteria. So we shouldn't use antibiotics unnecessarily.

Have Fun!

The body's immune defence becomes stronger when we feel well. So it's important to sleep a lot and to eat good and healthy food.

Playing – and laughing – is also good. And being outdoors a lot.

Remember that the next time you do something fun with a friend: it's not just fun – it gives you a better immune defence as well!



Torsten

Just as Torsten closed the book, Dad came home to make lunch for the two of them.

“How are you?” asked Dad, and ruffled Torsten’s hair.

“Quite good. Imagine that – it’s almost like a war in the body. I think my white blood cells have killed a whole bunch of viruses.”

“Good. You’ve understood,” said Dad.

“I hope the match goes well for the team tomorrow,” said Torsten.

“Kim promised to call and let us know how it went.”



“There’s bolognese left from yesterday. Spaghetti?” asked Dad.

For the first time in three days, Torsten felt a bit hungry.

Dad moved towards the kitchen.

“You have to wash your hands!” called Torsten.

Dad stopped at the door.

“You probably have a load of viruses with you from work,” said Torsten.

“I don’t want to get sick again so I miss the game next week too.”

Dad smiled and went to the bathroom to wash his hands.



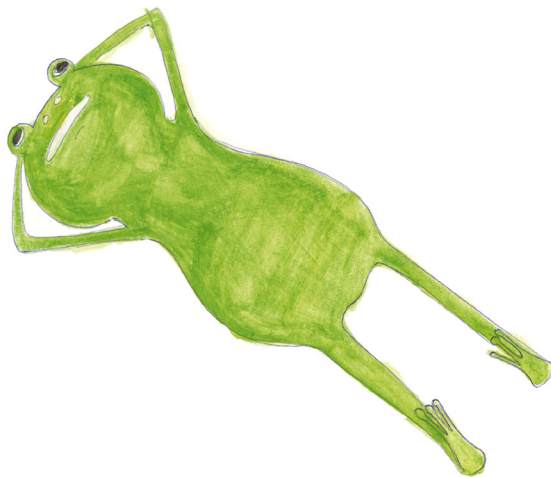
Torsten looked at *the Cold Book* again. He was going to bring it to school and show it to his teacher.

His classmates also needed to know that there is no medicine for colds.



COLD! Is printed by Strama Skåne in collaboration with Kunskapscentrum för Barnhälsovård i Region Skåne (Knowledge Centre) for Paediatrics in Region Skåne.

COLD! tells the story of Torsten, who has a cold. He learns about viruses, bacteria, and antibiotics from a book. Torsten also finds out how the body takes care of a cold itself, and gets well again.



The logo for Strama, featuring a grey arc above the word "Strama" in a red, sans-serif font.

Samverkan mot antibiotikaresistens



ISBN 978-91-637-5006-9