



Chlamydia

**Clam-id-E-A
Bacteria**



Max Size (nm)	1000
Number of species	3
Danger to humans	37
Usefulness to humans	1
Antibiotic resistance	5

Chlamydia, a sexually transmitted infection (STI) caused by the bacteria *Chlamydia trachomatis*. It can cause mild symptoms such as discharge from the vagina or penis to more serious complications, i.e. inability to have children or swollen testicles.



Salmonella

**Sam-on-ella
Bacteria**



Max Size (nm)	1000
Number of species	3
Danger to humans	89
Usefulness to humans	15
Antibiotic resistance	40

Salmonella are rod shaped bacteria most commonly known for causing food poisoning and typhoid fever. Symptoms range from vomiting to diarrhoea and even death, in worse case scenarios.



Staphylococcus

**Staff-ill-O-coccus
Bacteria**



Max Size (nm)	1000
Number of species	19
Danger to humans	174
Usefulness to humans	20
Antibiotic resistance	90

Meticillin Resistant Staphylococcus aureus (MRSA) are the bacteria responsible for causing difficult to treat infections in hospitals. They are a variation of the common *Staphylococcus aureus* that have evolved to become resistant to many common antibiotics.



Streptococcus

**Strep-Toe-Coccus
Bacteria**



Max Size (nm)	1000
Number of species	21
Danger to humans	50
Usefulness to humans	75
Antibiotic resistance	20

Many *Streptococcus* are harmless to humans and are the normal flora of the mouth and hands. However, some *Streptococcus* bacteria cause about 15% of sore throats. Strep throat symptoms include sudden fever, stomach aches, and swollen glands.



Escherichia

**Esk-Er-Ic-E-A
Bacteria**



Max Size (nm)	2000
Number of species	7
Danger to humans	54
Usefulness to humans	184
Antibiotic resistance	N/A

Many strains of *E. coli* are harmless, and huge numbers are present in the human and animal gut. In addition, *E. coli* is among the most studied of all creatures great and small. In some cases, however, *E. coli* cause both urinary and serious abdominal infections and food poisoning.



Pseudomonas

**Sued-O-Moan-Us
Bacteria**



Max Size (nm)	5000
Number of species	126
Danger to humans	50
Usefulness to humans	150
Antibiotic resistance	80

Pseudomonas are one of the most common microbes found in almost all environments. Although some may cause disease in humans, other species are involved in decomposition and bioremediation.



Lactobacillus

**Lac-Toe-Ba-Sil-Us
Bacteria**



Max Size (nm)	1500
Number of species	125
Danger to humans	0
Usefulness to humans	195
Antibiotic resistance.....	10

Lactobacilli are very common and usually harmless to humans. They are present in the vagina and the gastrointestinal tract, and make up a small portion of the gut flora. These bacteria have been extensively used in the food industry - in yogurt and cheese making.



Treponema

**Trep-O-Nee-Ma
Bacteria**



Max Size (nm)	2000
Number of species	3
Danger to humans	115
Usefulness to humans	8
Antibiotic resistance	10

Syphilis is an extremely contagious disease, caused by *Treponema* bacteria. Symptoms start with a skin rash and flu-like symptoms and can lead to brain damage and death. Syphilis can be cured with antibiotics however resistant strains are becoming more frequent.





Penicillium

Pen-Ee-Sil-Ee-Um Fungi



Max Size (nm)	332, 000
Number of species	16
Danger to humans	64
Usefulness to humans	198
Antibiotic resistance	N/A

Penicillium is a fungus that has literally changed the world! Since this discovery, the antibiotic has been mass produced to fight bacterial infections. Unfortunately, due to its overuse many bacterial species have become resistant to this antibiotic.



Saccharomyces

Sac-A-Row-My-Sees Fungi



Max Size (nm)	10,000
Number of species	19
Danger to humans	1
Usefulness to humans	184
Antibiotic resistance	N/A

For at least 6,000 years, *Saccharomyces cerevisiae* (Brewers yeast) has been used to make beer and bread! It is also used to make wine and it is widely used in biomedical research. One yeast cell can turn into 1,000,000 in only six hours.



Tinea

Tin-Ee-A Fungi



Max Size (nm)	110,000
Number of species	12
Danger to humans	43
Usefulness to humans	14
Antibiotic resistance	N/A

Although a variety of fungi can cause foot rashes, *Tinea* cause the itchy, cracked skin typically between the fourth and fifth toes known as Athlete's foot, which is the most common fungal skin infection. Athlete's foot affects nearly 70% of the population.



Stachybotrys

Stack-Ee-Bo-Trys Fungi



Max Size (nm)	72,000
Number of species	2
Danger to humans	83
Usefulness to humans	2
Antibiotic resistance	N/A

Stachybotrys (or straw mould) is a black toxic fungus that although itself is not pathogenic, it does produce a number of toxins that can cause a variety of health problems ranging from rashes to life threatening reactions for those with respiratory problems.



Aspergillus

Ass-Per-Gill-Us Fungi



Max Size (nm)	101, 000, 000
Number of species	200
Danger to humans	47
Usefulness to humans	124
Antibiotic resistance	N/A

Aspergillus is both beneficial and harmful to humans. Many are used in industry and medicine. This fungus accounts for over 99% of global citric acid production and is a component of medications which manufacturers claim can decrease flatulence!



Cryptococcus

Cryp-Toe-Coccus Fungi



Max Size (nm)	7, 500
Number of species	37
Danger to humans	98
Usefulness to humans	37
Antibiotic resistance	N/A

Cryptococcus is a fungus which grows as a yeast. It is best known for causing a severe form of meningitis and meningo-encephalitis in people with HIV/AIDS. The majority of *Cryptococci* live in the soil and are not harmful to humans.



Candida

Can-Did-A Fungi



Max Size (nm)	10,000
Number of species	44
Danger to humans	74
Usefulness to humans	175
Antibiotic resistance	N/A

Candida is among the natural flora living in the human mouth and gastrointestinal tract. Under normal circumstances these fungi live in 80% of the human population with no harmful effects, although overgrowth results in candidiasis (Thrush).



Verticillium

Ver-Tee-Sil-Ee-Um Fungi



Max Size (nm)	8,500,000
Number of species	4
Danger to humans	1
Usefulness to humans	18
Antibiotic resistance	N/A

Verticillium is a widely distributed fungus that inhabits decaying vegetation and soil. Some *Verticillium* may be pathogenic to insects, plants, and other fungi but very rarely cause human disease.





Tobamovirus
Tob-A-Mo-Virus
Virus

Max Size (nm)	18
Number of species	125
Danger to humans	12
Usefulness to humans	34
Antibiotic resistance	N/A

Tobamovirus are a group of viruses that infect plants, the most common being tobacco mosaic virus, which infects tobacco and other plants causing a mosaic like discoloration on the leaves. This virus has been very useful in scientific research.



Influenza A
In-Flu-En-Za A
Virus

Max Size (nm)	90
Number of species	1
Danger to humans	146
Usefulness to humans	12
Antibiotic resistance	N/A

The flu is an infection caused by *Orthomyxoviridae*. Every year 5 – 40% of the population get the flu but most people recover completely in a couple of weeks. In 1918, before there were any vaccines for the flu, twenty million people were killed!



Lyssavirus
Lice-A-Virus
Virus

Max Size (nm)	180
Number of species	10
Danger to humans	74
Usefulness to humans	5
Antibiotic resistance	N/A

The *Lyssavirus* infect both plants and animals. The most common *Lyssavirus* is the Rabies virus and is usually associated with dogs. Rabies has been responsible for over 55,000 deaths worldwide but can be prevented by vaccination.



Ebola
E-Bowl-Ah
Virus

Max Size (nm)	1500
Number of species	1
Danger to humans	200
Usefulness to humans	0
Antibiotic resistance	N/A

Filovirus causes a disease more commonly known as Ebola. It is one of the more dangerous viruses known to humans due to the fact that there is no known preventative vaccine or treatment. 50 – 90% of victims die from the disease!



Lymphocryptovirus
Lim-Foe-Cryp-Toe-Virus
Virus

Max Size (nm)	110
Number of species	7
Danger to humans	37
Usefulness to humans	2
Antibiotic resistance	N/A

The Epstein-Barr virus is a type of *Lymphocryptovirus* causing an illness known as the Kissing Disease or Glandular fever. Patients suffer from sore throats, swollen lymph glands, and extreme tiredness. Transmission requires close contact such as kissing or sharing drinks.



Simplex Virus
Sim-Plex Virus
Virus

Max Size (nm)	200
Number of species	2
Danger to humans	64
Usefulness to humans	2
Antibiotic resistance	N/A

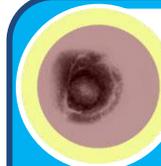
Herpes simplex is one of the oldest known sexually transmitted infections. In many cases, *Herpes* infections produce no symptoms at all but unsightly scab-like symptoms do occur in about one third of people infected.



Rhinovirus
Rhino-Virus
Virus

Max Size (nm)	25
Number of species	2
Danger to humans	28
Usefulness to humans	14
Antibiotic resistance	N/A

There are over 250 different kinds of cold viruses! But *Rhinovirus* is by far the most common. *Rhinoviruses* are responsible for almost 35% of colds. *Rhinovirus* can survive three hours outside someone's nose. If it gets on your fingers and you rub your nose, you've caught it!



Varicellovirus
Var-E-Cell-O-Virus
Virus

Max Size (nm)	200
Number of species	2
Danger to humans	21
Usefulness to humans	7
Antibiotic resistance	N/A

Chickenpox is caused by the *Varicella-Zoster* virus. It is highly contagious although rarely serious and is spread through direct contact (or coughing and sneezing). Almost everyone caught chickenpox in their childhood prior to the discovery of the chickenpox vaccine.

