## *Staphylococcus aureus*

## History

* Discovered in 1880s
* In the '40s and '50s, *S. Aureus* developed a resistance to penecillin
* Methicillin was used to combat the penicillin-resistant strands, however *S. Aureus* also became resistant to that too
* First recorded case of MRSA, or "methicillin-resistant *Staphylococcus Aureus*" in 1961
* Another antibiotic, vancomycin, is now used to treat it
* In 2002, doctors documented the first strains of *S. Aureus* immune to vancomycin, however these are still rare

## Description & Structure

* Spherical
* Average gene length of 824 nucleotides
* *Staphylococcus*, or "staph" is a group of bacteria that causes many diseases.
* Often causes painful skin and soft tissue conditions
* More fatal forms of S. aureus infection include bacterial pneumonia and bacteria in the bloodstream

## Spread & Movement

* Direct contact with infected person
* Contaminated hands

## Symptoms

Symptoms of a localized infection include:

* Pus
* Boils
* Other abscesses
* Reddening or swelling
* Tenderness
* Pain

Symptoms of a bloodstream infection:

* Difficulty breathing
* General discomfort
* Fever
* Chills

### Prognosis

* Some people will never get an infection even though they are colonized with *S. Aureus*
* Most skin infections will heal without medical treatment
* Most will heal within a few weeks

## Fun Facts

* Colonies formed are yellow, leading to the name *Aureus*, Latin for gold
* Can cause disease directly because of bacteria itself or as a result of toxins made by the bacteria
* MRSA is also immune to a host of other penicillin based antibiotics called beta-lactams