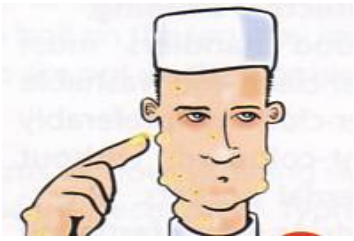
STAPHYLOCOCCUS AUREUS

Raw Drinking Milk

(For micro testing, the test will be for '*Coagulase positive Staphylococcus aureus*')

Sources



KEY CHARACTERISTICS FOR RAW MILK PRODUCTION

1. Only 4% *Staphylococcus aureus* species can produce enterotoxin
2. *Staphs* may multiply at 7°C and enterotoxin can be produced above 10°C
   (Toxin is the waste matter of certain microbes which is the agent which causes illness)
3. Enterotoxin is heat stable and can still be present after 2 hours of boiling
   ie. Pasteurisation will kill *S aureus* organisms but not destroy the enterotoxin
4. The overall growth range of the microbe is 7 - 45°C
5. Some people carry the organism on their skin
   Most people have 3 or 4 species of their own or family variations in their noses & throats
7. *Staph aureus* is associated with mastitis and high somatic cell counts
8. *Staph aureus* is a poor competitor with other bacteria
9. It can cause skin infections
   Methicillin **R**esistant **S**taphylococcus **A**ureus
10. It can produce an enzyme -*beta- lactamase-* which breaks down antibiotics
11. It can rebuild its cell wall to resist cationic and other detergents
    (Some of the mild, non-chlorine so-called disinfectants are positively '+ve'charged soaps which stick to the -ve charges on the microbe cell wall & put it in an electrical straight jacket for for a few hours)

SUMMARY of Preventative Measures

1. Good husbandry for milking animals - mastitis control programmes
2. Monitoring and acting on somatic cell count results
3. Strict hand washing
4. Covering wounds and reporting infections to management
5. Maintaining personnel hygiene and stopping bad habits
6. Not wearing jewellery where dead skin cells can accumulate
7. Most food process companies prohibit exposed body piercings
8. Beware of what you touch after wearing any type of glove - black gauntlets or single use/disposable
9. Robotic milking machines can achieve very early detection by electrolyte trends of the increased salts in the milk