

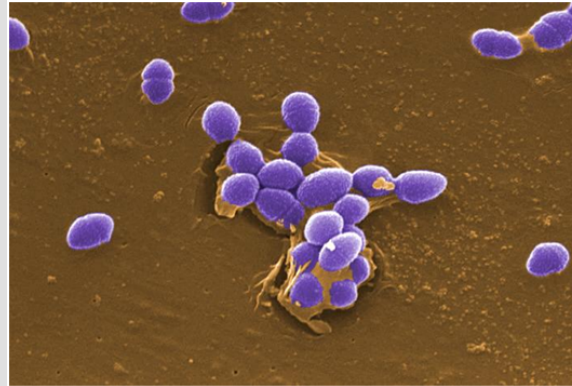
CHEZ MICROBE

Edmund Brennan

PORK CHOPS



Source: KitchMe



Source: First Aid Team



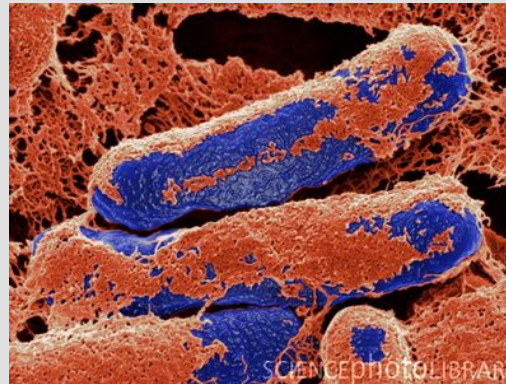
Source: DOE Joint Genome Institute

- While pork loin can be easily overcooked, and I personally prefer it medium rare, under-cooking exposes the consumer to pathogens including strains of *Enterococcus* (pictured center), *Salmonella*, and *Staphylococcus*. Nearly all of these pathogens require temperatures at or above 160F.
- Pork producers can also be exposed to dangerous porcine pathogens such as *Streptococcus suis* (seen at far right), which can pass into humans and cause serious problems such as streptococcal toxic shock syndrome. Some pork products, such as pork blood and offal, can also carry this pathogen.

APPLESAUCE



Source: Bon Appetit



Source: Kenyon University



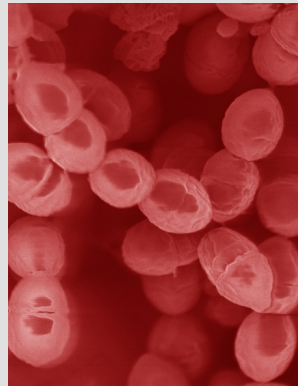
Source: University of California

- Applesauce usually comes in sealed containers, often stored at room temperature. While the processes usually kill all microbes and make them shelf-stable, improper production procedures can lead to growth of dangerous fungi like *Clostridium botulinum* (seen center).
- Fresh, homemade apple sauce has less botulism risk. Apple skins, however, can be heavily covered in microbes, as well as in pesticides and antimicrobials. Damage, such as worm holes and bruises, provides a rich source of food for sugar-loving microbes, including *Mucor* (seen in effect at far right)

QUARKSTRUDEL



Source: Vital Deutschland



Source: University of Wisconsin



Source: University of Utah

- Quark is a German fresh cheese not unlike a dry cottage cheese; very hard to find in United States. *Quarkstrudel* uses rich *Sahnequark* and fruit, often dried and soaked in liquor (itself a product of fermentation).
- Traditionally, quark was made by adding fermented buttermilk (the product of *Lactococcus lactis* (seen center) or *Lactobacillus bulgaricus*, and often other wild lactic acid bacteria) to milk to produce an acid-set cheese. Today it's more commonly rennet-set and made with just acid, like cottage cheese.
- To replicate the original biodiversity of buttermilk, [some cheesemakers](#) suggest using fresh cheese cultures used for cheeses like *fromage blanc* and *chevré*, such as *Streptococcus cremoris* (seen right) and *L. l. diacetalysis*.