

## *Staphylococcus epidermidis*

**Gram reaction and morphology:** Gram positive cocci in clusters

**Oxygen requirement:** facultative anaerobe

**Habitat and human pathogenicity:** *S. epidermidis* is commonly found as normal flora of human skin and mucous membranes. It is widely distributed in large numbers. Although, it is not as pathogenic as other members of its genus, it can cause problems. It has been known to produce extrapolsaccharide substances as a way to produce a biofilm. This biofilm increases cell adhesion and provides protection from antibiotics and other host defense mechanisms. The formation of a biofilm by *S. epidermidis* is what makes it a common problem in medical implantation devices. It is also seen as a contaminant of clinical specimens because of its wide distribution throughout the body. It can be and has been associated with nosocomial infections including but not limited to bacteremia, endocarditis (due to implanted heart valves), and other infections that deal with any type of implanted devices including shunts and catheters.

**Colony characteristics (on Blood agar plate):**

Size	small to medium
Color	translucent, white colonies
Hemolysis	Gamma to Alpha hemolysis

**Biochemical characteristics:**

Test	Result
Catalase	(+)
Oxidase	(-)
Coagulase	(-)
Voges-Proskauer	(+)
Lipid hydrolysis	(+)
Bile esculin	(-)