

FYI:THE STORY OF STARCH

The use of starch as a base material in many commercial body powder products has an interesting background story that manufacturers of these products have not told you. In fact, these manufacturers may not know themselves why starch is used and what functions it plays on our skin. If you are the curious type, and I hope that you are, you may enjoy this story!

Why has starch replaced talc as the bulk material of choice in body powder products? What can starch do that talc cannot do or does not do as well?

How does starch function to help protect our skin?

The story of starch begins with **mud**. When animals are wounded, injured or tormented by biting and stinging insects, they go and immerse themselves in mud. This is an instinct learned by almost every animal to keep cool and reduce access to biting insects, but also **to prevent infection!** One would assume that mud/dirt contains many infective agents so how can mud prevent infection?

Animals have a blood defense system called **Complement** that complements our other natural humoral (i.e. serum antibodies) and cellular (i.e. white cells) host defense systems. Our blood's host defense systems, like the blood's protective coagulation system, help us avoid being killed by infections (i.e. sepsis). The complex and multi-component blood Complement system provides a **first line of defense** toward infective agents like bacteria, and surprisingly MUD can activate this blood system. When you have an injury or wound and blood comes in direct contact with the mud, this blood Complement system becomes activated. Mud itself does not activate Complement, but **SILICA** in the mud does. This is because Complement is activated by coming in contact with and recognizing certain surfaces like silica as '**un-natural**'. When Complement components bind to the surface of silica particles, a number of **Complement Factors** are released that attract and stimulate our white cells to attack (i.e. eat) the bacteria. Then other factors from this complex blood system attack the bacteria directly by punching holes in the bacteria's wall causing them to virtually explode and die. **Therefore the blood Complement system is one of Nature's best antiseptics!**

So what does this have to do with starch? Be patient, I am getting to that.

Early man used the same instinctive behavior as did the animals around him and so he too used mud when he was injured or wounded. Mud was used long before other natural remedies or treatments were learned or discovered by man. Later it was learned that vegetable matter, particularly **cooked vegetable matter (i.e. starch)**, could substitute for mud in preventing infections when applied to a wound. For example, early Europeans learned that if one put a cooked potato on a cloth or bandage and applied this to a wound, it would help prevent infection. This treatment mode was called a **Poultice**. If most of you ask your grandparents what a Poultice is, they can tell you. **Now do you see why starch is effective?** The starch in the cooked potato, like mud or silica, activates the blood's Complement system. In fact, starch is a better Complement activator than silica, and starch is even better than **talc**, a base material previously used in body powders.

So now I have told you why starch has replaced talc in body powder products, what starch can do better than talc, and how starch functions to help prevent infections. Therefore, when you use a body powder for a rash, for irritated, or for injured skin you are also providing an anti-bacterial agent to the area (i.e. starch). Please note that this is why many of the commercial powder products available today now use starch. **HOWEVER**, none of their products **ALSO** contain **our anti-inflammatory agent Dermzea™** (Aspartyl-Phenylalanyl-1-Methyl Ester), but our **DermaZaide™ Body Powder** does. Consequently, you now know **WHY** a starch powder is better than a talc powder and that **OUR DermaZaide™ POWDER with Dermzea™** is even better than **ANY** of the main powder products currently on the market!!

THE END