

Modified starch is key ingredient of your food

[Nutrition](#), [Healthy Food](#)



Modified starch is made by altering the inherent properties of starch by treating it with acids, enzymes or alkali. It has increased stability against heat, acid and freezing. With improved properties it has found its application in various sectors such as healthcare, food and beverages, cosmetics and paint because of its binding, thickening and stabilizing properties.

The biggest challenge with modified starch is that it doesn't offer any nutritional value while in some cases it can cause side effects. Modified starch is generally obtained from corn, wheat and potato. After processing with chemicals modified starch contains 10% maltodextrin, which camouflages the presence of monosodium glutamate. It is difficult to digest. Resistant dextrin and maltodextrin are also used as fiber supplement. These supplements may cause abdominal bloating and accumulation of gas in alimentary canal. Some possible short term side effects caused due to intake of modified starch are weight gain, allergic reactions, headaches and palpitations. Pregnant women, newborns and elderly people are always advised to consult to their physician before intake.

The long term effect of modified starch is still unknown. It is generally considered safe ingredient and is approved by European Union and other governing bodies also. Food and Beverages industry is the major driving force behind modified starch market. For example it is used as thickening agent in sauces and provide enhanced viscosity in yoghurt. It is also used to increase the shelf life of food. Another driving factor of this market is demand for modified corn starch. As modified corn starch is less expensive compared to other product. Furthermore it is gluten free and high source of energy also.

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Corn starch is also used in cosmetics, Japan based modified starch manufacturer, Japan Corn Starch Co. Ltd. presented its new product Pearl starch. This product improves glides, spread ability and feel during application. This texture improving ingredient is expecting to welcome by big cosmetic brands.

Even after growing demand some companies are not able to witness growth in their revenue such as Ingredion registered \$193 million in 2018 (Q2), decreasing 8% from 2017(Q) which was \$210 million whereas MGP witnessed 2.9% growth in 2018 (Q2) by registering total sales to \$88.3 million compared to 2017 (Q2). To stay ahead in market companies such as Ingredion and Cargill are investing high in R&D to get improved modified starch which can add nutritional value with zero side effects by physical method.

The importance of physically modified starch cannot be ignored. Researchers are still working to address the best possible physical combination such as temperature, moisture or pressure to modify starch. It is safe and doesn't involve addition of any chemical. It has potential to accelerate the market share.

The concept of clean label food product is attracting the consumers, as they want to know what they are putting inside their body. With the increasing concern about weight gain and other side effects, government is also spending huge in development of better substitutes. However the process of finding better substitute is costly and time taking but to capture the

maximum market share companies need to come up with product which can reduce the fear of side effect.