

Where Do We Go from Here?

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Medical research of prickly-pear cactus is in its infancy. In order to answer the question posed of “Where do we go from here?”, we must examine the existing studies to resolve two issues. The first issue deals with what is known about the medical benefits of prickly-pear cactus based on existing research. The second, and more important issue, is what we don’t know. Understanding what we don’t know will help guide our future research efforts.

What do we know? First, the serum glucose reduction effect observed among Type II diabetics after consuming prickly-pear cactus is an acute effect. That is, the effect appears, reaches its peak shortly after consumption (3 to 4 hours), then begins to diminish. The average reduction of serum glucose is about 20 to 30 mg/dL when a dose of 500 grams has been consumed. Second, there appears to be a cholesterol-lowering effect, also acute, but the average magnitude of this reduction has not been determined. Third, the commercially prepared cactus “pill” has no effect with regard to reducing serum glucose among Type II diabetics. These “knowns” are based on a systematic review of the studies conducted by Drs. Frati and Castaneda (Mexico) and reported at the 1996 Professional Association for Cactus Development (PACD) Conference.

What don’t we know? We don’t know if serum glucose levels among Type II diabetics can be maintained over a long period of time with routine consumption of prickly pear cactus. Most of the existing studies have examined only single doses. One study did administer a dosage of 100 grams, 3 times a day over a 10-day period with the resulting serum glucose reduction on the 11th day equivalent to the average serum glucose reduction with an acute dosage of 500 grams. An interesting research project would be one where patients integrate a smaller dosage of prickly pear cactus, e.g., 50 to 100 grams, two to three times per week, in their routine diet with weekly serum glucose measurements. This type of study would demonstrate if it were possible to maintain an acceptable serum glucose level simply by integrating cactus into one’s diet at a reasonable level (rather than a large dose of 500 grams).

We also don’t know if there is a “best” way to prepare cactus for use in serum glucose reduction. There is some suggestion that heat during preparation may enhance the serum glucose reduction, but it is a very weak suggestion and needs further study. Similarly, what is the best dosage and over what interval of time?

Are there any long-term side effects? The existing studies report constipation with acute dosages of 500 grams. Would this side effect continue with lower dosages over longer periods of time?

Finally, if there is a true serum glucose reduction effect (or cholesterol lowering), can an active ingredient be identified? If identified, is the effect as strong as observed in its natural state? Would the availability of an effective cactus “pill” increase the use of cactus or would it be too costly compared to cactus in its natural state?

The unknowns certainly outnumber the knowns and answers to these questions are needed before cactus can be used routinely to control serum glucose and cholesterol levels. In order to convince the medical community, randomized controlled trials of cactus of different preparations and different dosages conducted over a long period of time (6 months or longer) are required. Outcome studies are also needed to determine if cactus, when used outside a tightly-controlled experimental setting, can continue to provide the effects desired. Finally, pharmacological studies for the purpose of producing effective cactus “pills” are necessary if cactus is to be used successfully throughout the U.S., Mexico, Central America, South America, and the rest of the world.

