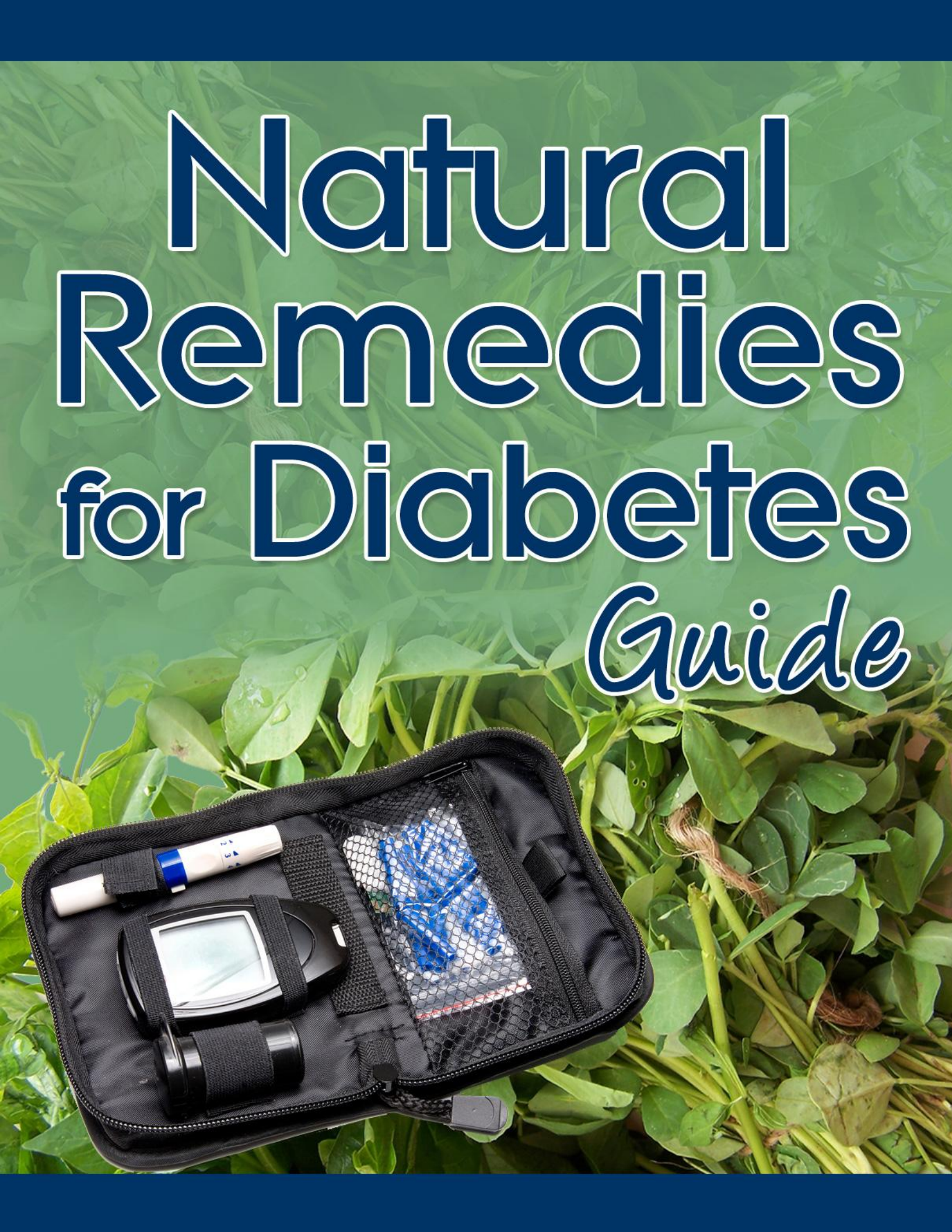
Natural Remedies for Diabetes Guide



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Section I: The Truth, And How To Spot It

If you are reading this report, chances are you are facing the possibility that your child has Diabetes. You want to know if there is anything you can do to:

- Help reverse it
- Cure it
- Control it

You've learned the difference between Type I and Type II – and you know that **Type I** (Juvenile Onset Diabetes) can only be controlled, not cured. It's a **lifetime genetic disorder**, which leaves the pancreas unable to produce insulin naturally. (Though the rate research is advancing these days, who knows what may be possible a few years from now?)

If your child has with Type II (rarer – but it used to be completely unheard of, in children), you know there is a great deal you can do, to help make their diabetes go away or stabilize under control. With both types, a balanced diet and regular exercise are crucial – but nothing is ever quite as black and white as the textbooks would have you believe…

Sometimes, no matter how careful you are with your child's diet and insulin, Diabetes can spiral out of control, causing a host of problems.

Sometimes, you read on the web about children who were miraculously "cured" of both types.

As a mother, you want to be sensible, and not take chances playing with your child's well-being by trying this natural remedy and that… but you also need hope. And really… you are just trying to help your child be as well – and as medically stable – as he or she can be.

What Is The Real Truth About Diabetes And Natural Remedies?

You've already taken the most important step towards giving your child the best chance of all: You've downloaded this report, in order to arm yourself with the facts. You intend to find out what works, what doesn't – and what has (or hasn't) been properly tested.

First and most important: Don't give your child any natural remedies until you have discussed it with your chosen medical professional. He or she may instantly realize some reason why a particular remedy is contra-indicated – not good for – your particular child.

What do I mean by "medical professional?"

Well, I don't mean your health store clerk or owner, knowledgeable as they may be. Nor do I mean your chiropractor. Let me explain: I have absolutely no issue with chiropractors who treat what they are trained to treat, or who have bona-fide supplemental medical accreditation – but in my neck of the woods, I know of or have heard about an alarming number who also SELL natural supplements these days – claiming these will cure everything from hangnails to cancer.

And while its true some supplements may be generally good antioxidants, and some chiropractors may know as much as an informed layman, **you really need to consult a medical professional who is thoroughly familiar with, and trained in, disorders of the endocrine system**.

This would include:

- Your child's paediatrician
- family doctor
- endocrinologist
- board certified naturopath
- board certified homeopath

But be careful, if you are investigating alternative medicine for Type I diabetes… Nothing can cure it. Nothing can replace insulin treatment – the cause is **a defective gene**.

Trying to "cure" Type I Diabetes solely by using a natural remedy is comparable to trying to put gas in a car that doesn't have a gas tank – and expecting it to run.

Keep Your Eyes Wide Open

Now before you start thinking: "*What is this? Is this writer actually* **against** *natural remedies*?" - let me assure you, this is absolutely not so! We will go on, after this short section, to explore some **really effective, proven natural remedies** that may help manage your Type I child's Diabetes.

However, there is a vast amount of misinformation spread by some very sincere (and very wrong) people. I would be negligent if I did not include a caution against the hazards of blindly accepting credentials from alternative practitioners, without thoroughly cross checking these. And your child's life is too important for me to take anything for granted.

You may be surprised to hear how easily people can buy medical degrees from spurious "colleges" …which exist only on **someone's computer**; and for every valid alternative college, with a code of ethics and regulated, well-structured, sound training, there is evidence of a hundred more where you can get your "degree" in a few weeks – for a fee, without ever having taken a class.

The sad truth is, the mainstream media is loaded with well-documented (and not so well-documented) stories about "alternative" practitioners who have convinced parents to stop their child's insulin in favor of some "natural" herbal alternative… and these poor children have promptly gone into a diabetic coma and died within days.

You also need to be on your guard against treatments based on emotional reasons, rather than objective.

Here is just one of the stories that have been in the news, over the last few years. Unfortunately, it is an all-too-common scenario:

- Asheville Citizen Times (Note with this one the "Naturopath" was **unlicensed**, and so should not have been identified as such.)

Many of these were not "stupid" parents or "evil" practitioners, either: They were **parents who desperately wanted their children to have a normal life**, who put their faith in misguided individuals who sincerely believed in the treatments they were proposing.

And if you have the heart and stomach for it, the following site holds a sobering and very sad eye opener on what can happen, when people don't thoroughly check credentials (among other errors I know *you're* not likely to make); or put their faith in the wrong "professionals" and untested methods:

- What's The Harm

It's not pretty reading. But there's nothing there you're ever going to do – or you wouldn't still be reading this report right now.

And now the part you've been patiently waiting for: **Actual natural remedies** that have been proven to help stabilize, control and sometimes (with Type II) even send Diabetes into remission...

Section II: Natural Remedies – The Good, The Bad And The Just Plain Weird

In this section, I'm going to introduce you to remedies that have been proven to work, ones that have been long accepted… and some that can actually do harm. Let's start off with what you really need to hear about…

Proven Natural Remedies

Prickly Pear (Opuntia)


"Photo courtesy PDPhoto.org"

Long used by Hispanic Americans in conjunction with formal medical treatments, there seems to be some evidence that science may be able to support its efficacy as a supplement. A 1996 study performed by the International Society of Technology Assessment in Health care concludes with admitting there is "*a strong possibility of a true metabolic effect for persons with diabetes and ingestion of prickly pear cactus*."[1]

Not only does it have known anti oxidant properties, it contains both valuable fiber and mucilage, providing a complex carbohydrate proven to slow down glucose absorption.

Usually taken in capsule form for diabetic treatment purposes, it has long been a staple, traditional vegetable in Mexican cuisine, and can also be prepared as an infusion.

There are two parts of the plant you can eat: The pads ("nopalitos") and the pear fruit (called – I kid you not – "tuna" in Mexico.)

[1] **Opuntia (prickly pear cactus) and metabolic control among patients with diabetes mellitus**. Aguilar C, Ramirez C, Castadeda-Andrade I, Frati-Munari AC, Medina R, Mulrow C, Pugh J; International Society of Technology Assessment in Health Care. Meeting. *Annu Meet Int Soc Technol Assess Health Care Int Soc Technol Assess Health Care Meet.* 1996; 12: 14. UTHSC, San Antonio, TX, USA.

Here is a link to an excellent and informative .PDF booklet which will tell you everything you want to know about Prickly Pear, by Armando González Stuart, Ph.D. He reports the results of several studies, and advises that although there is strong evidence that it does indeed have hypoglycemic (blood sugar reducing) effects, medical treatment not be discontinued.

Remember – if you are planning to give this supplement to a child, do double check with a medical professional **who is familiar with this supplement** first! One of the biggest dangers of supplements that are effective can lie in inadvertently altering the effect of regular medications (which should not be discontinued.)

Benfotiamine (Vitamin B1)

Better known as Vitamin B1, this fat-soluble substance is currently being tested, with favorable results in helping repair or prevent typical diabetic blood vessel and nerve ending damage. There is hope for it as a treatment for **retinopathy, neuropathy**, and **nephropathy** complications: specifically in combating AGE damage.

What is AGE? – "Advanced glycation end products": A harmful substance formed by **excess glucose in cells**.

A study published in Diabetalogia, at Springerlink, by D. Edelstein and M. Brownlee concluded that of nine participants in the study with Type I Diabetes, "*treatment with benfotiamine plus α-lipoic acid completely normalised increased AGE formation, reduced increased monocyte hexosamine-modified proteins by 40% and normalised the 70% decrease in prostacyclin synthase activity from 1,709 ± 586 pg/ml 6-keto-prostaglandin $F_{1\alpha}$ to 4,696 ± 533 pg/ml*."

The FDA had not approved Benfotiamine as of this writing, but its use in helping prevent dangerous blood vessel damage within the eyes and kidneys (as well as the extremities) of Type I sufferers is slowly being documented.

Vitamin D (ergocalciferol, cholecalciferol)

What we know of as "vitamin D" is actually composed of two fat-soluble components: vitamin D2 (ergocalciferol) and vitamin D3 (cholecalciferol). It is vital to good health for many reasons, but has been found deficient in many children with Diabetes.

Small amounts are found in foods such as **eggs, liver, fatty fish** and **some mushrooms**, but food is not its primary avenue to the body. Therefore, its best way to be administered is as a supplement (usually in fish oil, along with Vitamin A); or synthesized in the body by the sun.

Vitamin D performs a variety of tasks to help humans keep healthy, but specific to Diabetes, it is implicated in **modulating immune function**, as well as **neuromuscular function**, and **reducing inflammation**.

Vitamin D acts by reducing "insulin resistance", the syndrome that afflicts some children with Type II Diabetes. In these cases, it is not solely poor diet and lack of exercise that predisposes these children to Diabetes Mellitus, but an apparent malfunctioning of the pancreatic cells responsible for insulin production.

The Boston Herald reported that 1 to 11 U.S. children are Vitamin D deficient. The Food and Nutrition Board's recommended dosage for children ages newborn to 18 is 5 mcg. (200 IU) per day, while the American Academy of Pediatrics (AAP) recommended dose is much higher – 400 IU.

There was an excellent study in 2006, conducted under the Laboratory of Experimental Medicine and Endocrinology at the Catholic University of Leuven, which states: "*Vitamin D deficiency has been shown to impair insulin synthesis and secretion in humans and in animal models of diabetes, suggesting a role in the development of type 2 diabetes. Furthermore, epidemiological studies suggest a link between vitamin D deficiency in early life and the later onset of type 1 diabetes*."[2]

Since Vitamin A in common Vitamin D oil supplements can be toxic if dosages are exceeded, be extra careful to follow these recommended dosages for children, and double check with your medical professional before using.

[2] http://www.ncbi.nlm.nih.gov/pubmed/15971062

During the summer, a healthy, balanced diet and play outdoors (properly protected by sunscreen) may be all that is needed. However, in winter, when sunlight is minimal, Vitamin D supplementation may be necessary – and not only for Diabetes sufferers!

DHA (docosahexaenoic acid)

DHA is an Omega-3 essential fatty acid. By "essential", this means the human body absolutely needs it – but the human body also cannot make essential fatty acids itself. Essential fatty acids are found only in food.

Before we rush off, however, to find out which foods to eat, it's important to realize that the number "3" is tagged onto the word "Omega" for a reason. It means there are actually 3 of these Omega acids.

- **DHA** (docosahexaenoic acid)
- **EPA** (eicosapentaenoic acid)
- **ALA** (alpha linolenic acid)

Each of these Omega-3 fatty acids functions somewhat differently, and one can actually be harmful to some people; so let's examine each a little more closely.

But first, why are they so important to people with diabetes?

Omega-3 fatty acids are anti-inflammatory in nature, and can help reduce several auto-immune disorder symptoms, including Type I Diabetes.

DHA and EPA is found in "cold water" fish, both ocean-going and fresh water. Especially fatty fish:

- Cod
- Herring
- Hoki
- Mackerel
- Salmon
- Sardines
- Tuna

ALA, on the other hand, is found only in plant foods:

- Canola
- Flax
- Soybeans
- Walnuts

If you've ever heard natural supplement companies claiming that Omega-3 derived from plant sources isn't as "good" or "effective", they simply mean that the vital DHA you're going to get from walnuts, for example, will be **a lot less** than you would get from a teaspoonful of Cod Liver oil – mostly because in plant sources, small amounts of DHA is actually synthesized from its main fatty acid, **ALA (Alpha Linoleic acid.)**

This is not necessarily a bad thing for children (who need ALA too); especially if you make these sources a regular part of your child's diet. You actually don't want your child to receive too much **EPA(Eicosapentaenoic acid)**, which physicians have indicated can be harmful. EPA is found in fish oil.

The University of Colorado Denver and Health Sciences Center conducted a study on 1,700 children considered "at risk" of developing Type I. (This was part of a larger study on the connection and interaction between genetic and environmental factors, in children's health.) The most significant part of this study: It involved children from all areas of the U.S. – both rural and urban - and all racial backgrounds.

The children were subjected to blood tests, to see how many had elevated auto-antibodies. The surprising result was that children who had received more Omega-3 in their diets had noticeably less auto-antibodies than those whose diets were Omega-3 deficient. (It should be noted that most of the children who had consumed Omega-3 did so from **plant sources**.)

These findings were significant enough to trigger the CDC[3] and NIH[4] to fund a 5-year study on diabetes in people under 20 years called SEARCH. It is estimated this study will cover 6% of all U.S. children and teens.

One last word about Omega-3 DHA supplementation: If you are planning to try your child on fish oil capsules, do discuss supplementing your child's diet with your medical professional, since it is possible to overdose on it – and it can cause some tummy upset.

[3] Center for Disease Control and Prevention
[4] National Institute of Health

Fish oil capsules should also never smell "fishy" – that's a sure sign the oil is not fresh, according to Warren Matthews, founder of the Xtendlife company in New Zealand. Xtendlife manufactures Omega-3 DHA using oil from South Sea tuna and hoki fish. Matthews claims that fish from these relatively unspoiled areas of the remote South Sea have barely perceptible levels of contaminants, compared to oils from the Atlantic. Indeed, this is backed up by independent studies linked to Xtendlife's site.

It's worth while checking to see where the oil was obtained, before you buy it. Fish oil produced from North Sea fish, off the coast of Norway, showed the highest rates of contaminants in studies; which is not surprising, since it is a much over-fished area.

Bitter Melon (Foo Gwa)

Comes straight from the traditions of Chinese medicine. Also said to lower insulin resistance, this has been creating quite a buzz among Diabetics and organizations – especially after two studies done during 2008 at the Garvan Institute of Medical Research and the Shanghai Institute of Materia Medica respectively.[5]

The scientists isolated 4 specific bioactive components, which apparently activate AMPK, a protein in enzyme form that **facilitates glucose uptake** and **stabilizes fuel metabolism**.

[5] Garvan Institute of Medical Research (2008, March 27). **A Ton Of Bitter Melon Produces Sweet Results For Diabetes**. *ScienceDaily*.

Bitter Melon looks like a lurid green, knobby squash, with a stringy, pithy center. It was used as early as the 16th century by famous Chinese physician Li Shizhen (pictured as sculpture in photo, courtesy of Wikipedia.)

If you do manage to find some in your area, do check with your medical professional first, of course. It is available in capsule form, and I have seen it served as a vegetable in a pork dish at a Chinese wedding I attended, but as far as I know it is not yet formulated for children in supplement form.

Magnesium

This mineral is part of any healthy diet that includes:

- Leafy Greens
- Nuts
- Seeds
- Whole Grains
- Barley

One of its most important functions is to regulate blood sugar. It also helps maintain healthy nerve function, immune function and muscle, and these are also areas much affected by Diabetes. It works to facilitate literally hundreds of enzymes, including those specific to blood glucose and insulin secretion.

There are indications that low magnesium levels decrease blood glucose control, especially in Type II diabetes. On the other hand, studies have also shown that it can help with the Type II reduce insulin resistance and result in lower fasting levels.

It can be taken as a supplement. Note, however, that high doses can cause unpleasant and severe side effects, including:

- Anorexia
- Breathing difficulty
- Diarrhea
- Irregular heart rhythm
- Low Blood Pressure
- Muscle weakness
- Nausea

Diabetes-Friendly Spices And Foods

You are probably already aware of the need for a carefully controlled diet, in keeping your child's blood sugar as stable as possible. I'm sure you already know to replace the refined and processed breads, flours, cakes and snacks with complex carbohydrates provided by nuts, starchy vegetables such as squash and yams (in moderation) and whole grains. Carrots provide a good source of vitamin A. Many of the vitamins and minerals needed for good blood glucose management can be found in leafy green vegetables and cruciferous ones, like cabbage and Brussels sprouts.

And there are many excellent Diabetic cookbooks available, both online and off.

However, I believe knowing precisely how and why some of these foods and spices work so well in the management of diabetes is also beneficial.

Cinnamon

A small 2003 study in the Diabetes Care journal proved that this pleasant spice has actually been proven to improve blood glucose stability in Type II patients, as well as lowering:

- LDL Cholesterol
- Cholesterol
- Fasting blood glucose levels
- Triglycerides

There have been other studies, as well as lots of anecdotal evidence, supporting this result. The *American Journal of Clinical Nutrition* reported a simple Swedish study involving test subjects fed daily portions of rice pudding; half with cinnamon, and half without. Results showed that those who had eaten the rice pudding with cinnamon sprinkled on top did not experience the same rise in blood sugar as those without.

The only study I know of involving children was done in New Hampshire, and published in Diabetes Care. It's worth noting, it was geared towards Type I Diabetes, and the results were quite different from the Swedish study.

The study involved 72 children, half of whom were given cinnamon in a dose of 1g. daily, and the rest of whom were given placebos.

The study ran for 3 months and the results showed no difference between the groups in any of the criteria they were looking for. However, there is lots of purely anecdotal evidence that it does gently regulate blood sugar (as well as the adult studies.)

Cinnamon can be sprinkled on deserts, or drunk as a "tea". It can come in cinnamon-stick form, for flavoring herb teas – but for children, the safest form is simply sprinkled on food, since any accidental overdose – possible with infusions – can cause severe side effects.

(Rice pudding or apple pie, anyone?)

Cloves

There is limited evidence to show that cloves also have a mildly beneficial effect, similar to cinnamon, but this herb doesn't seem to be used very often nowadays in every day North American cooking.

You'll sometimes find it as an ingredient in herbal teas – but if you're going to bake that apple pie laced with cinnamon, add a tiny sprinkling of ground cloves, or half a dozen whole ones, too. That's the traditional European way to make apple pie – and it does add a unique twist.

And by the way, chewing whole cloves was a trick that young men and women used to use in Victorian days before their equivalent of a "date", to sweeten their breaths. In fact, there are records of a 14th century Welsh poet, Dafydd ap Gwilym – an admirer of the ladies – doing the very same thing!

Blueberries/Bilberries

These berries are powerful antioxidants, easy on the digestive children and generally well-tolerated by children.

However, some children seem to find the sugar levels in them hyper-stimulating. They will not harm your child, however, by lowering blood sugar too much, if you'd like to try the actual berries.

If you plan to use them in supplement or "tea" form, do check with your medical professional.

Garlic

Though pungent, it has had reported benefits in multiple studies, in keeping blood glucose levels lower after meals. That is not its only benefit, however: It has also been observed to decrease serum cholesterol levels.

Onions

Yes, the lowly everyday onion is said to lower blood glucose levels, when included with meals. There have been enough studies to make it universally accepted that this effect does in fact occur – especially if one can tolerate the onions raw. Children may accept this in tasty, marinated salads.

There was one study, which unfortunately I cannot locate for this report, in which onions actually had a significant positive effect on "poorly controlled" subjects.

The downside? Well, both onion and garlic do make your breath smell. But there's really nothing to cry about, when you consider the benefits!

Green Beans

Everything we've said about onions, goes for green beans too.

Except there's no aftertaste and no pungent smell.

Barley

If starches are a problem, you might want to try buying natural bread made with barley flour (look for the FDA sticker certifying it) and serving it at meal times. 100 g. per day (for adults) lowered blood glucose levels over a 4 week period, in one study – and there have been several more that seem to support this type of result, including one published in the American Journal of Clinical Nutrition.

It is also provides important fiber, and improves "carbohydrate tolerance".

Barley cereal also makes a good breakfast component for diabetics – providing you like the taste.

"Pearl Barley Water" (the leftover cloudy water from strained, cooked barley mixed with pure lemon juice) is an ancient, soothing and tried-and-true recipe for bladder infections in the United Kingdom. (The British equivalent of cranberry juice?)

It wasn't until much later in the 20th century it was discovered as beneficial in controlling blood glucose levels (providing it isn't sweetened with sugar!)

(Alas – so far, I have not been able to locate a British granny who has the exact recipe.)

Other Spices And Glucose-Lowering Foods Not Recommended For Children

There are other herbs and foods that have had a reportedly good effect on blood glucose levels, but have other side effects or untested qualities that make them questionable for use in children's diets:

- **Fenugreek**
- **Gingko Biloba**

"Bad" Foods

We know about sugars, and refined starches and carbohydrate, but one fact you may not know: There is a popular theory going round that cow's milk has caused diabetes in children – more exactly; that children who drank a lot of cow's milk early in life are more prone to develop Diabetes. To complicate matters further, there have been studies that support this – and studies that find no evidence this occurs.

I've read many reports on this subject, both pro and con. One of its biggest advocates is a doctor named T. Colin Campbell; but on examining documentation, it appears he may not be allowing for such additives one finds in milk products and cream nowadays as corn syrup and carrageenin (a thickening agent, made from seaweed.) (If this sounds startling to you, do check the ingredients on the next carton of "Light" coffee cream you buy.) I don't think you can ignore the presence of fructose-glucose, or corn syrup!

A young researcher named Chris Masterjohn wrote a detailed rebuttal, and an exchange of correspondence between the two followed. For myself, I'm inclined to agree with Masterjohn; but the important thing is… what do you believe? (To learn more about this debate, visit Masterjohn's site.)

The American and Canadian Diabetic Associations is a good place to start, for more information about nutrition for diabetics.

Diabetes-Friendly Recipes I've Found On The Net

Here are links to some diabetes-friendly recipes I've found on the net, making the most of some of the natural ingredients we've spoken about…

Orange Trout and Prickly Pear Cactus (Note you can buy Prickly Pear cactus pads with spines already removed at grocers in certain parts of the country – as well as in jars.) Uses parsley, a herb also said to be beneficial to diabetics.

Cactus And Bean Salad – This recipe also makes use of **garlic**, long held to have anti inflammatory properties, though empirical data has yet to prove this conclusively.

How To Extract Prickly Pear Juice From The Fruit

About.com offers a lively little collection of recipes using **Bitter Melon** (also known as "Balsam Pear".)

Books

Prickly Pear Cactus Medicine, by Ran Knishinsky (Includes 24 recipes)
The Prickly Pear Cookbook, by Carolyn Niethammer (60 recipes from accredited South-western chefs, full color photos)

Natural Remedies Not Recommended For Children

Among the collection of natural remedies, there are those absolutely not recommended for children, even though some have proven quite helpful to certain adults.

It's important to know what they are – and why they are not recommended…

Ginseng (Panax Quinquefolius, Panax Ginseng)

This root is also touted as a natural remedy for Diabetes, but it is **not recommended for children.** Ginseng has a whole list of alarming side effects and possible interactions with foods and medications; among which it can lower the heart rate, cause palpitations and elevate blood pressure.

It is reported to stabilize blood sugar, and its ginsenosides are "steroidal" in nature, with reported anti inflammatory properties. **Adult** dosage levels for Diabetics are generally given as 100-200 milligrams. However, even if you are an adult diabetic, again I urge you to discuss this supplement thoroughly with your doctor.

It can affect a variety of Diabetes medications, such as:

- Amaryl
- Glucophage
- Glucotrol XL
- Glynase

Those with high blood pressure report it consistently causes severe headaches.

Chromium

This essential trace mineral has been the subject of several studies, with almost equally divided results, both pro and con.

One error not to make: If you're trying it for yourself, don't mistake Chromium Picolinate for it – they are not the same substance at all!

At first, there was some excitement about Chromium Picolinate, because early studies showed it seemed to help in processing carbohydrates, as well as fats. Then in 1995 a Dartmouth College study showed results in which Chromium Picolinate caused gene and DNA damage in rodent cells.

Severe kidney failure has been reported as a side effect of adults who take high doses.

Aloe Vera (Aloe Barbadensis)

The juice of this wonderful relative of the Cactus family has long been used as a salve for burns, sunburns, cuts and grazes, and it is recognized as having the ability to lower blood glucose levels.

However, it is not recommended for children. It contains compounds that produce a laxative effect, when ingested; as well as causing severe stomach cramps.

Caffeine

This has been recommended for Diabetes, but as a stimulant it is not something parents usually want to give their child!

Nor has there been any real proof it does anything beneficial for Diabetes sufferers at all.

And There's More…

This is by no means an extensive list of every natural remedy there is, but it does give you a good start on:

- The best, proven remedies
- Old "faithfuls"
- Ones to avoid

Anything more exotic, do remember to check out thoroughly first, and see what scientific studies are published on the subject. The Springerlink database is a good place to start your search. It is packed with documented studies.**Lifestyle And Diet**

There are many sources of sound advice on diet and lifestyle changes for Diabetics – particularly for children. However, instead of elaborating on all the things you should be doing – which you probably already know by now - let's reverse-engineer the lives of many North American children and teens.

("Reverse engineering" is itself a 20th century term, coined when industrial espionage professionals would dismantle a competitor's successful product, to see how it was made.)

Our examples here are **not** the parents of Diabetic children.

Scenario #1

You are driving to take your oldest daughter to a soccer match. Her two siblings, age 4 and 5, are in the back seat. You have a good meal in your crockpot, simmering – but all the children are hungry now. They want "French fries".

You realize that the smallest one is getting crotchety. Your soccer player is getting moody and grumpy. And your middle one won't stop asking.

You quickly buy them all an order of fries (super sized for the teen) telling yourself that it's just to hold them "for now". Peace reigns as they munch, and everyone is happy. Especially since you yielded to the teenager's request and bought her a frosted drink (you couldn't really call it a milkshake.) The other two have soda pop.

Scenario #2

You come home from work, late and exhausted. You had ground beef thawing in the fridge, but you're just way too tired to cook it.

Feeling slightly guilty, you order pizza. As you're placing the order, it sounds like the floor of the stock market, with kids shouting over top of each other, trying to catch your attention.

"Get those breadstick thingies!" "Dipping sauce! Don't get garlic – remember I like ranch!" "Mom, can we have pop with it? Get drinks!"

You break off to yell at the kids to quiet down, then tell the order taker to thrown in four orders of those breadstick thingies (ignoring the six-year-old's cries of "Five, mom! Five!") and a bottle of pop.

Later, you all lie around feeling strangely lethargic. But there's a good show on TV, and it's keeping the kids quiet. You sternly tell your oldest son, no; he *can't* have another piece. Six pieces is quite enough, thank you…

Scenario # 3

Depressed, you make up a large batch of macaroni and cheese, using the powdered cheese you got at the bulk store. You're a single mom, you've recently lost your job, and buy any groceries at all is a challenge.

The macaroni and cheese tastes like cardboard to you – but the kids seem to love it. Afterwards, they snack on bread and jam, because you're out of cereal. (It's so expensive, nowadays!)

You're dying for a piece of fresh fruit. All it seems like you've been eating lately are starches..

Scenario # 4

Your grocery bill topped $150 this week, but what are you to do? You piled up on frozen pizza, Pizza "pockets" and frozen dinners, because you know you're going to be working late this week – and lately, you've just been too tired to cook.

And then there were the kids' lunches. They won't eat the whole grain bread and cream cheese sandwiches they used to like; and the school has banned peanut butter, which was the only thing your 8-year-old really enjoyed. Besides, ever since you foolishly got them those pre-made lunch packs, they've refused to eat anything else. You console yourself by remembering that the box says it contains complete nutrition.

Then one day, you read the ingredients. Some of them startle you. The lunch pack seems to be composed mostly of chemicals…

Scenario # 7

You used to make healthy snacks; and indeed, your table has a colorful (and overflowing) bowl of apples in the center… And there are the carrot and celery sticks (pre-packaged) you bought yesterday.

The kids were asking for Mini Cheeses, so you bought those too: But you noticed the package hasn't been opened.

Your teenager is sitting doing her homework, ploughing her way through a bag of potato chips. Each of the other two has their own giant family-sized bag too. You originally meant them all to share one bag, but the youngest wanted cheesy nachos and your son likes his potato chips ketchup-flavored (which the other two won't eat.) Sternly, you make them promise their bags will last all week.

The youngest manages this, but the other two leave the empty bags for you to pick up, after it's too late to call them back from wherever it is their dad has whisked them off to…

Scenario # 8

You pride yourself on insisting your children eat healthy diets. They had home-made Chicken Florentine for dinner, with freshly-steamed carrots on the side. You congratulate yourself that they've grown to like couscous with raisins and a dash of cinnamon and cloves. And there isn't a single piece of packaged carbohydrate in your house (apart from the really good pumpernickel bread – the only sort they'll eat.)

You don't notice, not one child wants to go out and play. Your eldest is doing homework, the littlest one is glued to a kid's TV show, and your son's off playing video games in his room.

Later, when you finally win the battle to make him turn his lights out at 11 p.m., you find an empty king-sized bag of potato chips in his room. The row about where he got it really wears you out…

The Challenges Of The 21st Century

Now, most likely you're patting yourself on the back in relief, because you didn't recognize yourself in any of these scenarios. You've been saying, "Boy, that writer sure doesn't know my lifestyle!" That's okay. It wasn't supposed to trigger you into any parental guilt at all.

What these scenarios represent are **extremely common patterns** and pathways our society is repeating and traveling down as a whole.

Let's look at some common factors:

- Both parents have to work outside the home, just to make ends meet
- Shopping is done on the fly, when you're exhausted, on your way home from a full day at the office
- There are lessons to ferry children to, almost every night of the week
- Television viewing is taken for granted
- No one goes for walks any more (except you, early in the morning, because you're concerned about your weight – or have to walk the dog, because the kids have lost interest)
- The children spend more time doing homework or on their computers than they do outside with their friends
- More and more foods are "pre-prepared".
- Frozen dinners are convenient.
- Fast food has become a ritual.
- Credit cards have made it easy to order food or go to restaurants.
- Everything in the stores seems to contain added sugar – even sauces and breads!
- You have to pay extra, through the nose, for "pure" food ingredients your grandparents took for granted

- Kids have more money and more choice about what they put into their bodies. Even if you pack your child a healthy lunch, there is nothing to stop her from tossing it out and eating French fries or honey buns in the high school cafeteria with her friends

- School cafeterias are not known for their top nutrition (though once in a blue moon, you hear of one or two that introduce fresh snacks – they're called "revolutionary")

- We pay people a really low wage – the lowest we can find – so we can afford to go to work to make that couple of hundred dollars extra that helps pay the mortgage.

I could go on, but that's basically life in the 21st century. It's a challenge to find time to properly prepare food; it's a challenge to be able to afford the best ingredients; it's a challenge to find time to exercise… or cook from "scratch"… and doing things as a family involves frantic trips in the car, and a lot of Dropping Off…

Both parents need to work, even though many moms (and some dads) would love to stay home and do the most important job on the planet. Television, computers and video games have replaced exercise… need I go on?

What all this has done is create a disconnected society. We abuse our Circadian rhythms – nature's way of keeping us in touch with the seasons and our bodies' dwindling needs by secreting melatonin from our pineal glands, as the year wanes and the days grow darker. We abuse our winter-sleepy systems by waking ourselves up with alarm clocks and rushing off to work in pitch blackness, through the latest blizzard. Electric lights keep us up till well into the night, doing all the "necessary" tasks like watching television, working late, going to the movies, shopping at malls, doing homework (or office work!)

What nature really intended for us is this:

We are animals who are like every other animal in nature. Our bodies are supposed to respond to the seasons, and we should be rising and sleeping with the sun. When bears "listen" to their pineal glands in the winter, they hibernate. So do a lot of other animals. But not humans – poor, abused creatures, forced into slave labor, night and day!

But that's okay: We weren't meant to hibernate completely anyway: Otherwise we'd have huge body mass and different metabolisms. (Oh, wait… half of us are well on the way there…)


We know that we are not supposed to exist solely on a vegetarian diet, because of our teeth and digestive systems. Our teeth are not all "grinders", like a horse's or deer's. We don't have overdeveloped slashing incisors, like wolves or bears. We are not purely predator, and not purely prey. We are not complete herbivores, if you look at our teeth; and definitely not pure carnivore.

In fact, judging by the way our body reacts to food, and the deficiencies that occur if we neglect certain food groups, we are **omnivores** – meant to eat a balance of animal proteins, fruits, roots and grains. (If you're a Christian, one other piece of "proof" can be attributed to Jesus Christ himself, who fed the multitudes with loaves and **fishes**. Assuming he is the Son of God, if he had believed in complete vegetarianism – or even if he was a total vegan – he would definitely never have done that, right?)

And what do we eat in the 21st century?

- A blend of genetically-engineered vegetables and fruits, augmented by liquid corn syrups and a host of other chemicals
- Animal fats that have been heated to temperatures which break down and alter their molecular structure (the "bad" trans fats)
- Refined starches (lots of them)
- A host of artificial chemicals designed to simulate "real food" taste
- Sugar
- Sugar
- Sugar
- Fruit drinks fortified with sugar (and have you looked at the "vegetable oil" component of your child's favorite 'wholesome' kids fruit juice brand, lately?)

If you do try to "go organic", you virtually need to be the president of the United States to afford it (or a Hollywood movie star.) Besides, organic foods rot faster, and require specialized shopping, learning curves and cooking time you don't have.

But there's more, during our walk through the 21st century human animal's anthropology…

There are basically two types of animal: Those who graze, but who are able to sprint short distances when threatened with danger (we'll use horses and deer again, for this example.) Grazers need constant food.

And hunters – those who can go for days without food when they absolutely have to, but make up for it with diets rich in protein.

If you look at us purely as animals, we have the characteristics of both hunters and predators; again, the mark of the omnivore – one who is able to eat everything.

If you take geographic location, science has proven that people from certain areas of the world need higher ratios of meat and/or fat. Others do much better on a diet rich in grains, vegetables, fruit and seafood.

In other words, your **genetics** play a strong role in your nutritional needs.

What this means in reality is that not everyone does best on the same dietary regime.

A sad example of this genetic and geographical difference occurs when we examine what happens when aboriginal groups like the Inuit, the Pima Indians and native Mexicans adopt a 21st century "North American" diet, which is basically deficient in vitamins, minerals and fiber; and high in sugar, fat and refined carbohydrates.

A startling rise in obesity and diabetes, that's what you see – noticeably greater than in Caucasian groups. And the studies confirm this. African Americans, too, suffer from an increase in diabetic children.

Natural health practitioners universally seem to agree on 2 principles:

- Eat foods grown locally, whenever possible
- Eat for your body type.

In other words, if your genetic heritage enjoyed a diet rich in sea foods and fruits, try to incorporate a good proportion of this into your diet. If you have genetic roots in countries where a high ratio of meat was consumed, you may actually find yourself craving more protein.

Your best bet, food wise – especially if you have a family member who is diabetic – can be summed up in one simple word: balance.

Don't go overboard on any one food group – or diet. If someone tells you that a vegetarian diet is the only way to go, do consider the fact that you are a true omnivore, and don't even try to go totally Vegan. That means you need animal protein, as well as grains.

If you really want to go vegetarian, that's not to say you can't. But **do** realize you may find yourself – and your family – seriously lacking in certain vitamins and minerals (especially B vitamins.) You will need regular blood tests, and if any deficiency shows, possibly B12 shots. You will need to practice "due diligence" and thoroughly explore alternative sources of nutrients.

The reason it's hard to make lifestyle changes is because everything about our society now is designed to make things easier for people.

- And life is hard.
- But, unlike the animals, we have **the ability to choose**.

When our ancestors first arrived in North America, there were no pizzas to order in. If you had a bad harvest, you actually faced the possibility of serious starvation over the winter.

It was taken for granted that women did not work outside the home – there was far too much to do in it. Every process was a "from scratch" process: You not only picked the apples, you cored and peeled them. Then you baked the pastry crust using flower and lard (and stuck your cloves in.) You baked your own bread, and just incorporated long rising times for the dough into your busy daily schedule.

Laundry was a vigorous exercise, as you rubbed clothes up and down on a "wash board" over a "copper" – a tub full of steaming water, which you recycled for each load. Rinsing was done by hand. You put each item of clothing through a "mangle" to squeeze out the excess water. You hung your clothes out to dry. Then you had to iron them.

Our great-great-great-great-grandmothers were **physical.** They worked their buns off!

And while it's great that we no longer have worry about the same sort of survival issues they did, and that we have a choice in careers, and are not slaves to household chores, we face different challenges.

And we have to raise our children to face those same challenges too.

Exercise Is More Than Just Entertainment

How long has it been since you went for a walk with your kids – a really long walk? If you're like me, the answer is, so long, you can't actually ever remember doing it. (Hopefully, you're **not** like me, and you're actually feeling quite superior right now. ☺)

Organized sports do play a very valuable role in our children's lives, but it's really our 21st century lifestyle that is the problem: Long hours in front of the computer or television; the reduction in "play" – or chores – outdoors; the formalizing of exercise into small chunks of time we `squeeze' into our schedules.... The fact that we have to have schedules in the first place… We need to be aware that our sedentary, sugar-filled lifestyles are the log in our own eyes to notice, instead of looking for specks ("natural remedies") out there – small tokens to patch the huge whole of our diets, lifestyles, stress and lack of exercise.

Exercise has become a chore, for many people, instead of just part of our daily lives… but exercise is so much more than that, to a diabetic child.

I'm not even talking about necessary weight control: I'm talking about the chemical changes in the body that occur, as a result of exercising. **Diabetics take medication – or supplements like Bitter Melon – to activate AMPK**, the enzyme that balances glucose uptake and fuel metabolism. But **exercise also <u>naturally activates</u> AMPK** – which is why it is so vital for Diabetics; particularly those with Type II, where lifestyle changes can make a crucial difference.

It's important to stop letting ourselves get swept along on the psychotic pace of modern-day life. It's important to stop looking for the "easy" fix – the wonder natural herb that's going to Do It All – much the same way as we use fast or pre-prepared foods as "easy" fixes for our overloaded and stressed-out lives.

It's important to regain our connection with nature, and with our bodies, and especially with our families… before even more children end up with Type II Diabetes.

Some ways **you can effectively make a these changes** – especially when it comes to natural remedies or therapies:

- Talk to your doctor about natural supplements or remedies you're interested in giving your child. Evaluate his answers as objectively as you evaluate the literature extolling the virtues of the product. If he dismisses you without good cause, find another certified and accredit health professional, and get a second opinion. If you decide to use the product, based on this second opinion, do let your first doctor know; and discuss how you are both going to monitor it.

- Keep a journal – note any improvements, anomalies, side effects, or even if there's been no improvement at all, after starting your child on the natural remedy.

- If your child experience any unpleasant side effects discontinue the product, and let your doctor know what has happened straight away. Especially watch out for rashes, blurred vision or breathing difficulty. Other symptoms you don't want to see are diarrhea, stomach pains and cramps, nausea, vomiting, headaches, rapid heartbeat, tingling sensations in hands or feet. **Do not let anyone tell you this is a "healing crisis".** It's an adverse reaction, pure and simple – and it means the product is not good for your child's body!

- Don't give your child products containing multiple herbal ingredients. If an adverse reaction occurs, you won't know which ingredient is responsible; and sometimes different components can react badly with each other.

- If your source of information is a blog with names like "healthySupps.org" or "GetridofUrdiabetestoday.info", it's **not** a source of factual information. It is just someone posting hastily put-together articles (lifted from other similar sources without any investigation) as **an excuse to display ads for natural products they've never tried that they want you to click on** – so they can get paid. It's their job.)

Look for valid medical studies instead. If you're like many people, and are not trained in interpreting scientific data, look for the part that says "results" or "conclusions". This is not as good as having a PhD, or asking your certified medical professional – but it's a darn sight better than getting your info from blogs that are a thinly disguised attempt to get you to click on some Wonder Cure offer.

The truth is, when it all boils down to it, we're back where we started… Wondering how best to manage our children's diabetes and hoping there may even be a cure.

Finding natural remedies that work is not just about discovering the "right" natural remedy. It's about something much bigger than that: Awareness, knowledge… and, above all, balance.