

A FOLLOW-UP TO A CASE OF ECZEMA

Alex was ten months old when the eczema first appeared. His pediatrician prescribed cortisone ointment and the hot, angry rash promptly healed--only to return soon afterwards. A few rounds later, worried at the prospect of keeping their baby slathered with potent steroids to subdue the repeated outbreaks, Patricia and Vincent began to explore other avenues (FELIX LETTERS 37 & 38). Briefly, in addition to applying food-grade linseed oil and Desitin® (over-the-counter ointment containing zinc, cod liver oil, lanolin, petrolatum, and talcum) to the baby's affected areas twice a day, Patricia mounted a double-edged campaign against possible allergens in both Alex's food and her own, since she was actively nursing him and could pass them on to him in her milk.

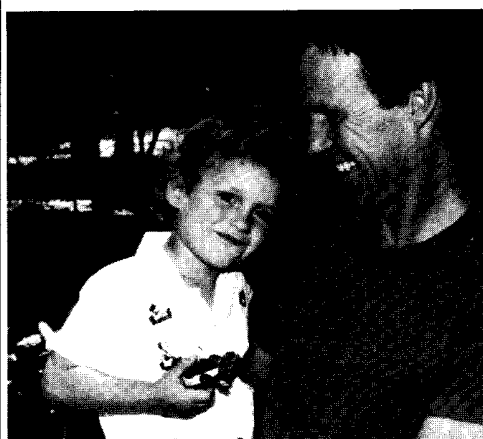
Alex was 14 months old in May of 1987 when she began the program. Foods that commonly cause allergies, such as wheat, corn, milk, sugar, peanut butter, and oranges, were avoided in their diets. They also took supplements, including zinc, vitamins A, C, and E, linseed oil, and an emulsified fish oil high in EPA and DHA, supplying important Omega-3 fatty acids which had been scarce in their diets. Pat describes her own reaction to the anti-eczema regimen (FL 37 & 38):

I was eating mainly rice, vegetables, fruit and meat, and I was BORED with it. For about ten days, I was mad at the health counselor, Vince, the kids--everyone!mostly I was miserable because I missed bread, dairy, sugar, and bakery goods. It never occurred to me until then that I might actually be addicted to them, almost as if they were drugs, or cigarettes. Looking back, though, I think I was suffering withdrawal symptoms!

She stayed with it because she was afraid Alex would end up with lifelong eczema, like her brother. Within a few weeks, however, before she saw any real improvement in the baby, she began to

experience a benign side effect in herself: *weight loss*. She had always had to stay hungry a lot to maintain the standard of slimness she valued. Throwing caution to the winds during her pregnancies with Alex and his older sister Bene, she had packed on a lot of pounds! Now, eating as much as she wanted of the foods on the low-allergy diet, the weight was sliding off. As Pat put it in our 1987 interview: "Now, I can eat as much as I want but I just don't seem to want a lot. [Laughs] If it isn't made of wheat, sugar, and dairy, I'm not too interested!"

The added incentive was that by July the baby's skin definitely was clearing up. She and Vince hadn't used the cortisone cream on him since early June. In October 1987, when I saw the family, Alex's skin had been clear for months with no sign of outbreak. Pat was still nursing him at 19 months, but he was eating more and more table foods. She would add one new food at a time, allowing a few weeks in between to see if it caused any problems. That fall, Alex appeared to be free of eczema.



Alex and Vince

The scene shifts to summer of 1989. I'm talking to Pat at her and Vince's tree-shaded home on the outskirts of Sonoma, a California town dominated by an old Spanish mission. Bene, who is five and a half, is at her friend's house nearby. Alex, a sweet-natured three-year-old, has brown eyes and a mop of blonde hair. His sister

goes to kindergarten, he to nursery school, and Pat teaches English as a Second Language at night at a community college.

CF: Tell me about Alex's skin.

PAT: *There's nothing on it. What can I say?---he's been fine!*

CF: What's his diet now? You're not nursing...?

PAT: *Only a little--just in the morning.*

CF: Promise me you'll cut him off before junior high! [We both laugh.] Since you're still nursing him, are you trying to avoid allergenic foods in case they might affect him?

PAT: *No, not really. Alex eats practically everything. He has Cheerios and milk for breakfast. He eats chicken, meat, fruit, vegetables. Lots of whole wheat bread...*

CF: You don't feel wheat is a significant allergen for him?

PAT: *No, he doesn't show any signs of allergy, except to orange juice, which he stays away from. He's fine with peanut butter, not allergic to it. He likes cow's milk and drinks quite a bit.*

CF: I suspect he would be reacting to some of these foods if he had continued eating them without letup. The program you followed for his eczema seems to have fortified his immune system during that critical period. Other than orange juice, what else are you careful about with Alex?

PAT: *That's about it. I don't let him eat a lot of sugar--at least I try not to, but he and Bene love sweets.*

CF: What kind of oils do you use for the family?

PAT: *I make "Better Butter," with half butter and half walnut oil. [To make "Better Butter," soften two cubes of butter, stir in one cup of oil (linseed, canola, walnut, or soy), pour into covered container and refrigerate. When firm, it's more spreadable than butter and has more Omega-3 and Omega-6 unsaturated fat than butter. It will taste like butter, not margarine.] We use canola oil...is that good?*

CF: Canola has more Omega-3 than walnut and a lot of oleic acid, as in olive oil, so it's a good one to use. Especially so since affordable linseed oil seems to have disappeared. What supplements does Alex take?

PAT: *He gets about four 250 mg chewable vitamin C's and a chewable multi-vitamin/mineral. He used to love the flavored emulsified fish oil, but he won't touch it any more.*

CF: I'll let you know if I hear of a decent-tasting chewable high-Omega-3 fish oil tablet. Even though canola and walnut oil supply essential Omega-3 fatty acids, which our bodies can convert into EPA and DHA, I think Alex might benefit from getting EPA and DHA directly from fish oil, since he eats hardly any fish. Anyway, it looks as if he's handling the common allergens like sugar, wheat, and milk nicely. A big relief to you and Vince, I know! But if he should begin to show signs of allergies, you have some guidelines to go by.

PAT: *Right.*

CF: I remember talking about a "rotation diet" for you, and you said you couldn't do it because you were such an 'all or nothing' person. But if Alex were to begin reacting to certain foods, a rotation diet might be a way to deal with it: for example, to explain to him that, "for four days we're not having any bread. We'll have oats, corn, rice and potatoes, instead." Or, "we won't have milk for four days but we'll have soymilk and fruit juice." Don't be afraid to try it; it's helped many children and adults who have food sensitivities.

[We make some antigen-antibody immune complexes all the time--it's a normal defense activity of our immune system. If the irritating foods are eaten, say, only once every four or five days, the body may have a chance to clear the immune complexes out before enough of them build up to cause some reaction, whether it's hives, a runny nose, stomachache, headache, or eczema.]

Anyway, that's something to keep in the back of your mind. It sounds as if you may not have to use it, because Alex is doing so well.

PAT: *Yes, there he is with his clear skin!*

Pat herself elected to remain on the essentially no-sweets, no dairy, no bread or crackers diet as a form of weight control. A devoted folk dancer, she is slender and fit. But so is Vince, who eats all the goodies Pat has foresworn! Life is not known for its fairness.

A favorite breakfast is a mixture of cooked steel cut oats, oat groats, and oat bran to which she adds raisins and pumpkin, sesame, and sunflower seeds. She enjoys potatoes, rice, tortillas made of corn or wheat, chicken, meat ("fish has gotten way too expensive!"), lots of fruit, vegetables, and salads. She takes cod liver

oil, multivitamins, and extra vitamin C and calcium. Her treats are honey-roasted or hickory-smoked peanuts and almonds, beef jerky, or potato chips.

PAT: *I don't eat any dairy products except cafe lattes, which are like dessert to me. In the morning, after I leave the kids off at their schools, I go to the coffee house and have my latte and read the paper. For a few moments, I can pretend I belong to the leisure class! Some mornings, I even have a sauna at the spa--what a lovely feeling! It helps me to pace myself during the day so I'm not wiped out when I'm teaching my classes at night, or when Vince and I go folkdancing.*

Eczema can be tricky and complex. Alex's maternal grandmother and uncle both had stubborn cases which were never treated from a nutritional angle. What worked in Alex's case was (a) removing foods to which he might be sensitive, and (b) adding certain nutrients (zinc, vitamins A, C, and E and Omega-3 fatty acids in the form of linseed oil and fish oil). The regimen healed his skin and toughened up his immune system's ability to fend off allergies.

More than likely, nursing has provided strong protective factors. Breast milk contains gamma-linolenic acid (GLA), an Omega-6 fatty acid that produces soothing, anti-inflammatory prostaglandins. Several medical studies show that GLA, given in the form of evening primrose oil, improves eczema in adults and children. *



My grandson the splasher



EASY WAYS TO USE FLAXMEAL

Readers are asking about the best ways to use flaxseed (linseed) as a regular part of the diet. Having never seen a flax plant before, I recently grew a dozen or so from seeds and enjoyed seeing the delicate blue flowers that popped open on slender, 3 ft. stalks. Now I'm harvesting the small pods, each with 8-10 seeds---light sea-green in color when immature, ripening to golden brown. I finally understood how ancient peoples got the bright idea of using *Linum usitatissimum* fibers to make cord and thread. As I tried to break off the little branches that held the seed pods, I found I couldn't break them but could peel them off the main stem in very thin, intact fibers the whole length of the stem. **Instant thread!** Since flax grew wild in many parts of the ancient world, I can see how people as distant from one another as Norsemen and Egyptians, for example, discovered the knack of weaving the threads to make linen cloth or twisting them into cord. Flax was one of the first plants brought over to the New World by the colonists, who used it to make linsey-woolsey, a woven mixture of linen and wool, for their sturdy, coarse garments. Also, the seeds and oil were valued in herbal medicine.

The seeds are easiest to use and their nutrients more readily absorbed when ground into meal. Flaxmeal does not have to be cooked. Whether you buy flaxmeal as Fortified Flax or buy whole seeds and grind them to a fine meal in a small seed or coffee grinder, you can use the meal in a variety of ways: (Fortified Flax and flaxseed are available in most healthfood stores.)

. Stir 2 tsp. into fruit or vegetable juice just before drinking. It thickens if it sits too long.

. Mix 2 tsp. into cottage cheese or yogurt. I like to add pumpkin seeds and applesauce or seasonal fruit. Or, at other times, I add tomatoes, sliced cucumber, radishes, etc. for a vegetable medley.

. Stir into cooked or dry cereal.

. Add to pancake or waffle batter, about 1 tsp. per serving.

. Add to cookie, cracker, bread or muffin batter.

. Add to sandwiches. Add to soups and stews just before serving.

. Sprinkle in salads.

Keep flaxmeal in a tightly closed package. Its natural content of vitamin E and other antioxidants helps to maintain its freshness, but store in fridge or freezer if possible. It's slightly laxative, so start with no more than two teaspoons a day for adults, gradually working up to 1 to 3 tablespoons if desired (proportionally less for children).

When we eat flaxseed or meal, its soluble fiber encourages bacteria normally living in our gut to produce *lignan* and *butyrate*--substances that exert anti-cancer effects on the colon.

One rounded tablespoon of flaxmeal (approx. 8 grams) contains about 2 grams of Omega-3 alpha-linolenic acid (ALA). Donald O. Rudin, M.D. says 2 grams of ALA may cover minimum daily needs, but recommends at least 4 grams a day "for most adults in good health who are not suffering any overt Omega-3 deficiency symptoms." (1)

You don't have to get all your Omega-3's from flaxmeal, but it's nice to know just one tablespoon a day can make a substantial contribution! ***



Felix at eight

FOODS FOR THE HEART

I am indebted to chemical engineer G.G. Pique, whose book, *OMEGA-6: EXCESS POLYUNSATURATE FOLLY*, alerted me to work by a Vanderbilt University medical team (2,3,4). Using innovative non-invasive techniques they were able to measure with unique accuracy certain substances made in the body during actual heart attacks or episodes of chest pain. One of these, *thromboxane*, was found to be five times higher in individuals with atherosclerosis than in healthy persons and greatly elevated during the acute events. This is the clearest picture yet that ties in traumatic cardiovascular episodes with a surge of thromboxane sweeping through the arteries.

Thromboxane is made in our blood platelets. We need it to initiate blood-clotting in order not to bleed to death when we've suffered a wound. In the abnormal amounts the Vanderbilt subjects were producing thromboxane, it becomes a dangerous molecule. The last thing a person with arteries already narrowed by atherosclerosis needs is a tidal wave of powerful clotting agents like thromboxane in their bloodstream!

As Pique puts it: "Your blood is constantly seeking the fine balance between two extremes: over-clotting--turning your circulatory system into chocolate pudding--and not clotting--allowing you to bleed to death if you cut yourself shaving."

The right amounts of thromboxane at the right time help to create the balance we need. But what control do we have over this? *Thromboxane*, it turns out, is *formed from essential fatty acids in our diet*. Pique suspects that a heavy intake of Omega-6 polyunsaturated oils may cause us to make too much thromboxane. Blood platelets make it from *arachidonic acid*, which our body can make from linoleic, the main Omega-6 fatty acid in commonly consumed vegetable oils such as safflower, corn, and cottonseed. However, leading fatty acid researcher Dr. David Horrobin says the steps by which our cellular enzymes convert linoleic to arachidonic are slow and often inefficient. *He believes a major portion of the arachidonic in our tissues, including blood platelets, comes from pre-formed arachidonic, mainly from the meat and eggs we eat.*

Nutrients That Help Arteries

The Vanderbilt team investigated a way to cut down on thromboxane production. They gave men with atherosclerosis 50ml of fish oil (about 3-1/2 tablespoons), supplying 10 grams of EPA a day for four weeks. EPA is a key member of the Omega-3 fatty acids, but tends to be low in the diets of most of us unless we happen to fancy fatty fish on a regular basis. One week on the oils and the men's platelets and red blood cells quickly incorporated EPA--almost as if the tissues were hungry for it. At the same time, platelet levels of arachidonic acid dropped. The result was good news: *a sharp, steady decline in thromboxane over the four weeks of the study.*

So now we have one clue to keeping thromboxane in check. More on this in a moment. Here's another. G.G. Pique says we've been consuming "historically unprecedented" amounts of Omega-6 oils. He's got some convincing arguments for cutting way down, also on the foods fried, baked, or drenched in them. He makes the point that when we eat them in great, steady quantities, all of our tissues, which will always reflect the fatty composition of our diet, become overloaded with Omega-6 arachidonic. "For years you have heard about free radicals. You must remember an article or two about them and about how nasty they are. Surprise: everyone forgot to tell you that one of the main sources of free radicals in the human body is the peroxidation of arachidonic acid..."



Felix in diapers

Olive Oil: Free-Radical Fighter

On the other hand, he says, olive oil, in particular extra virgin (i.e., unrefined, not subjected to heat, and less than 1% rancidity), has been used happily for thousands of years before heart attacks became the unhappy fashion. It's still a mainstay of Mediterranean people who have sturdy hearts and arteries. Olive oil, it seems, has a natural anti-oxidant action that quenches free-radical attacks on our tissues. Not only does extra virgin olive oil contain the free-radical fighter, vitamin E, but it happens to be rich in phenols, a class of compounds that also serve as anti-oxidants.

The Good Fish Oils

Like the Vanderbilt scientists, Dr. Horrobin (5) believes that if we increase our intake of Omega-3 EPA and DHA in the form of fatty fish or fish oils, we can reduce thromboxane and the other mischief-making metabolites of arachidonic. EPA and DHA tend to steal away enzymes that arachidonic requires before it can be converted into thromboxane or other nuisance molecules.

On this score, Pique writes: "Norway sardines are the poor man's solution to the Omega-3 deficiency problem," particularly sardines canned in sild (sardine) oil [see FELIX LETTER 47]. The sild oil and sardines in one 3.75 oz can will provide a 6 to 9 gram Omega-3 wallop. Down go thromboxane levels in arteries!

Dr. Horrobin suggests we cut down on foods with substantial amounts of ready-made arachidonic, particularly meat and eggs, as an added way to deal with thromboxane overload. He also advises us to consume the natural precursor of an artery-protecting substance our body makes known as Prostaglandin E1. The precursor is GLA (gamma-linolenic acid), an Omega-6 fatty acid. Breast milk happens to have a good supply, which works just right for babies. The rest of us can turn to other GLA sources such as evening primrose oil, borage oil, black currant oil, or Spirulina, all of which usually are available as food supplements.

Useful Health Lore

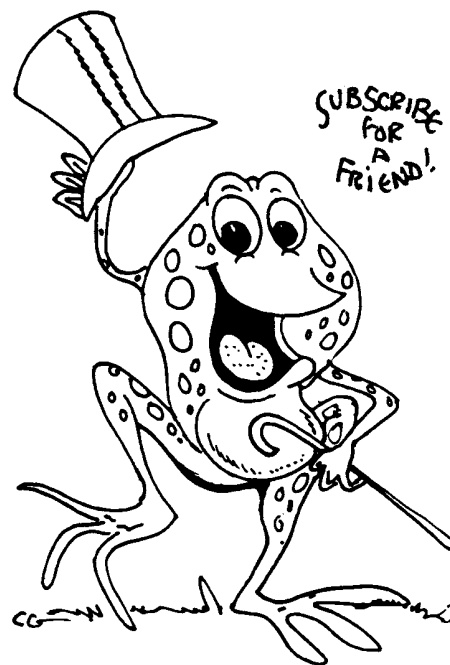
In his research-gathering on healthy arteries, Pique has laid out a soundly based program for general health. It's a

comforting one, easy to follow, and includes novel ways to augment fiber intake. For instance, did you know that one slightly green, not quite ripe banana provides 20 to 25 grams of fiberlike crystalline starch? "Some scientists believe this undigested crystalline starch reaching the colon may be essential to health, as the starch is then converted by colon bacteria into a short-chain fatty acid derivative known as 'butyrate.' Butyrate generated in your colon has a protective effect on the cells lining the large bowel and may help in the DNA damage repair process..." Once a banana has brown spots, almost all of the fiberlike starch has turned to sugar and no longer serves in the same way. Yellow bananas, before brown spots develop, have about half of their carbohydrate as sugar and half as valuable crystalline starch, so you don't have to settle for the astringent taste of green bananas, he says.

Pique has an intriguing rundown on a little-known plant source of Omega-3's. "We feel that the real Native North American health secret was chia, an oily seed in the mint family....Chia figures among the richest sources of Omega-3 in the plant kingdom...one of the main staple foods of the Aztecs...so crucial to the ancient Mexicans that an Aztec state was named after it and the name still prevails in modern Mexico: Chiapas." Harrison Doyle, an expert writer on its history and use, has been eating chia with breakfast "regularly for about 33 years, since 1955....He splits wood, and works in his garden about six hours a day. His diet besides chia includes whole wheat and oatmeal, butter (never margarine), cruciferous vegetables, pigmented fruits and vegetables, lecithin, beans, Norway sardines, and very little sugar, animal fat, or vegetable oil. Sound familiar? Nothing unusual here, except that Harrison Doyle is 99 years old, is working on updating his last two books," and his mind is as sharp as a laser beam.

Get your local healthfood store to stock chia seeds. You can sprout and eat them like alfalfa sprouts. Or, Pique suggests soaking a tablespoon of the ground or whole, tiny black seeds in 5 oz of lukewarm water overnight, then adding to your oatmeal or pancakes at breakfast.

Good, practical stuff. You can order his book from Baker & Taylor, Momence, IL 60954-1799, tel. (800) 435-1845. ☐



References

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- (5) D. F. Horrobin, et al. *Biomed Biochim Acta* 43, 1984, 114-120.

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