

First, I would like to address my comments to Allen's letter. From my own experience in practice in Kentucky where this program is still in use, the state agencies charged with overseeing the Medicaid vaccine program did not provide any promotion, education, or coercion to physicians who volunteered for this relatively simple program. The state agency simply mailed the physicians the vaccines, the physicians kept track of whom they gave the vaccines to, and they mailed the state agency a list each month. If this is the case in other states (as I suspect it is), then the provision of vaccine supplies is the most likely impetus for the increase in availability of immunizations in physicians' practices.

As Vernon points out in his letter, achieving increased immunization availability is a goal that can be reached in different ways. The program to which he refers is similar to the state Medicaid program; however, it is funded by a pharmaceutical company rather than a government agency. Regardless of who supplies the vaccine, the main point of our study is unchanged: To increase the use of immunizations for patients of lower socioeconomic status in private practice settings, the vaccines must be made available to the practicing physician.

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1. Hueston WJ, Mainous AG III, Farrell JB. Childhood immunization availability in primary care practices: effects of programs providing free vaccines to physicians. *Arch Fam Med.* 1994;3:605-609.

Striae Gravidarum: Folklore and Fact

The article by Madlon-Kay¹ in the May 1993 issue of the ARCHIVES regarding striae gravidarum addresses an important problem but unfortunately continues to miss the mark for providing the answer. After 15 years of family practice that included obstetrics, I changed my practice to that of nutritional preventive medicine. That was almost 20 years ago. One of the subjects that I emphasize today is preconceptual nutrition.

I have a 0% incidence of striae gravidarum in my patient population when they have faithfully complied with the intensive nutritional supplement program that I prescribe. My first success was with my eldest daughter. Although previously buttock and thigh striae had developed, no striae of the breasts or abdomen developed during pregnancy when she took my recommended supplement. Healthy skin tolerates enormous stretching over time without the tearing of fibers that results in striae formation.

The need for zinc and ascorbic acid in collagen formation is well recognized. Pyridoxal 5-phosphate is an almost universal cofactor in zinc-dependent en-

zymes. My specific recommendations include oral administration of zinc as the picolinate (45 to 50 mg daily), ascorbic acid (>1000 mg), and pyridoxal 5-phosphate (50 mg); in addition, an all-purpose multivitamin mineral preparation is prescribed, as are supplements of essential fatty acids from flaxseed oil. The relationship of zinc and vitamin B₆ to striae specifically was first described by Pfeiffer.² Ultimately, what I am reporting is based on 20 years of clinical experience and is valuable in terms of clinical outcomes regardless of the results of double-blind control studies.

What is of even more importance than the unhappiness of all the mothers who have had to suffer the cosmetic disturbance that striae create is the unavoidable corollary that the children of such mothers receive less than optimum nutrition when they start their lives.

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1. Madlon-Kay DJ. Striae gravidarum: folklore and fact. *Arch Fam Med.* 1993; 2:507-511.
2. Pfeiffer C, the Publications' Committee of the Brain Bio Center. *Mental and Elemental Nutrients: A Physician's Guide to Nutrition and Health Care.* New Canaan, Conn: Keats Publishing Inc; 1975.

In reply

I appreciate Levin's interesting clinical observations about the prevention of striae gravidarum by the use of nutritional supplements. Observations have been made previously about the role of nutrition in the cause and prevention of striae. A British obstetrician observed that women on low-protein diets have poorer connective-tissue formation and are predisposed to striae.¹ A lay pregnancy guide recommends that women get adequate protein in their diet and take ascorbic acid and α -tocopherol supplements to help prevent stretch marks.² I am unaware of any studies that confirm these observations and recommendations. Levin also expresses concern about nutritional deficiencies in the infants of women with striae gravidarum. This is an intriguing possibility that, to my knowledge, has not been suggested previously.

Obviously, more is to be learned about the cause and prevention of this common condition. The observations of clinicians such as Levin are invaluable in directing the course of future research. I am personally reluctant to recommend the nutritional supplement suggested by Levin until such studies have been performed.

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1. Liu DTY. Striae gravidarum. *Lancet.* 1974;1:625.
2. Hotchner T. *Pregnancy and Childbirth: The Complete Guide for a New Life.* New York, NY: Avon Books; 1984:115-116.