

## Low Salt Diets: Why They Don't Work

The following is reprinted from [What Every Pregnant Woman Should Know](#), by Gail Sforza Brewer with Tom Brewer, M.D., 1977.

Every day of her life the expectant mother, like every other man and woman, needs salt. Each of the trillions of cells that make up her body testify to this biological necessity. Like the cells of all species evolved from the sea, hers must be continually bathed in salt water to remain healthy.

Her unborn baby shares this legacy. Afloat in a sac filled with hospitable brine, the baby obtains all the salt it needs from the mother's circulating supply. The only way the essential salt will be in the mother's bloodstream is if she eats it. Salt is a component of many foods, in addition to being readily available in its commonest form, ordinary table salt. The placenta permits the transfer of salt from the mother's bloodstream to the baby's from the earliest weeks of pregnancy until the moment of birth.

Every person has many finely tuned mechanisms which work in the body to preserve the appropriate concentration of salt in and around each cell and in the bloodstream. These mechanisms are inter-related, so that a change in salt metabolism which affects one of them causes adjustments in others. Human salt requirements are widely variable depending on an individual's level of physical activity, state of health or illness, and the external temperature and humidity. There is a great deal of concern today about overconsumption of salt in our country. Studies have shown that excess salt intake from infancy onward may result from the intake of prepared foods and snack foods which contain a great deal of salt, but little else nutritionally, and have come to comprise a large part of the diets of many people. While the concern about over-salting may be legitimate in terms of overall public health, there is one group of people for whom over-salting is not a problem--pregnant women. In fact, **pregnancy is one condition in which the body requires more salt in order to remain healthy.** Numerous changes in the mother's body during pregnancy explain this increased need for salt.

Of first importance is the growth and development of the placenta. This organ, unique to pregnancy, makes possible the exchange of all nutrients and waste products between mother and baby. As the baby grows and requires more nourishment, the placenta increases in size to provide it. If the placenta does not grow well, neither can the baby.

As pregnancy progresses, the placenta needs a great deal more blood flowing through it in order to work efficiently. In normal pregnancy, the mother's blood volume must expand by more than 40 percent to meet this metabolic need. Salt is a chief element in maintaining this dramatically expanded blood volume. One of the properties of salt is that it causes the body to retain fluid which, under normal conditions, is retained in the bloodstream for use in placental perfusion. **Salt restriction during pregnancy limits the normal expansion of the blood volume.** A blood volume below the level needed to service the growing placenta produces disastrous consequences.

Depending on the degree of salt restriction and subsequent blood volume limitation, the placenta may grow slowly or not at all; develop areas of dead tissue (infarcts) which cannot function; be unable to accomplish the transfer of all needed nutrients to the baby; or even begin to separate from the wall of the uterus, causing hemorrhage and cutting off the baby's oxygen supply. Obviously, when the ability of the placenta to function is impaired, the baby's growth, development and even life are imperiled.

Clinical evidence for this view of the importance of salt in pregnancy was provided in 1958 by Dr. Margaret Robinson, a London obstetrician. Working in a public clinic, she conducted a study of 2,019 pregnant women, chosen at random. Half were instructed to reduce their salt intake; half to increase it. Information about which foods contain high amounts of salt was given to the mothers in the low-salt group. Dr. Robinson did nothing else by way of dietary counseling to influence what the mothers ate. She only asked them to report the amounts of salt they were eating.

Unfortunately, not all the high-salt foods on the restricted list are nutritionally deficient. For instance, many, like milk, eggs, salty cheeses, salty fish and salty meat products are important sources of essential high-quality proteins. Since this study was conducted with low-income mothers for the most part, the effect of banning these foods from the diet because of their salt content was also to ban the lower-priced sources of excellent protein. Consequently, when the mothers followed the diet and were unable to afford higher-priced protein foods, such as lean meat, they were not only on a low-salt diet but on a low-protein one as well. So, the outcome of this study is due not merely to salt-restriction alone, but to a combination of salt and protein restriction. Since imposition of a low-salt regimen on a pregnant mother may well mean protein deprivation as well, the results of Robinson's work are very significant:

**The low-salt group had nearly three times more damaged placentas, two and a half times more toxemia and twice the number of infant deaths.**

The high-salt group fared better in other ways. They had fewer delivery complications and even a reduced incidence of leg cramps during pregnancy than mothers in the low-salt group.

## Salt in Pregnancy

	High Salt Diet	Low-Salt Diet
Toxemia	37/1000	97/1000
Perinatal deaths	27/1000	50/1000
C-section	9/1000	14/1000
Abruptio placenta	17/1000	32/1000

--Adapted from Margaret Robinson. "Salt in Pregnancy," Lancet 1:178, 1958.

**The inescapable conclusion is that dietary salt is an essential nutrient for the pregnant woman. It is required for optimum human reproductive efficiency. To restrict salt is to court disaster.**

The low-salt, low-calorie diet doesn't work because it overlooks the body's physiologic salt-conserving mechanisms and brings about the very conditions it was designed to prevent.

Peggy recommends her clients salt their food to taste. This is especially important for women having blood pressure issues during pregnancy. Peggy recommends using rock salt, sea salt, or Celtic salt because of their high trace mineral content.