

Since C.L. Mendelson's report in 1946 (Mendelson C.L. The aspiration of stomach contents into the lungs during obstetric anesthesia. *Am J Obstet Gynecol* 1946; 52: 191-205.), most anesthesiologists assumed a very conservative stance used with obstetrical surgical patients with a "nil per os" (Latin for nothing by mouth or "NPO") for maximum safety. Is a slowing of the contraction pattern due to dehydration and no food/fuel? If so, does this also contribute to a slowed labor pattern and ultimately augmentation? More importantly, does having nothing in the stomach lower gastric acidity enough to protect the esophagus from corrosion should aspiration occur? Does being NPO eliminate **Mendelson's Syndrome**?

Conversely, midwives and some physicians will allow fluids, soups, crackers, etc. during the early and active phases of labor. Can fluids or food during labor, along with IV fluids lower gastric acidity by giving the acid something to break down and facilitate the contraction pattern, possibly avoiding some interventions such as augmentation? And statistically, what is the likelihood of Mendelson's Syndrome or death from pneumonia due to aspiration?

According to Joy Hawkins, M.D. of the University of Colorado Health Sciences Center, scant key scientific data exists to show that laboring women who are kept NPO are less likely to die due to aspiration than women who had some sort of food or fluids. Without food, a laboring woman's body enters into ketosis. Starvation ketosis occurs when the pregnant body is starved, especially of carbohydrates. With starvation ketosis, tissues begin to breakdown and the byproducts of this metabolism are called ketones, which actually aggravate nausea and possibly vomiting. So does keeping a woman NPO actually potentiate Mendelson's Syndrome? Additionally during pregnancy, women experience reflux due to delay emptying of stomach contents thought to be due to higher levels of progesterone, decreased motilin levels and the growing uterus applying pressure to the digestive system including the stomach valve. Do these hormonal influences along with NPO ketosis make things worse?

Dr. Robert Galser, M.D. of the University of Pennsylvania Medical Center says that we cannot afford to speculate as aspiration is a very real problem, especially for the mother who has general anesthesia with a cesarean section. Although Mendelson's research was mainly on rats and rabbits, it is suggested that IV's help to prevent ketosis while keeping stomach contents at a minimum. Currently, there is no evidence that moderate levels of ketosis are harmful to the fetus. Penny Simkin found that of several stressors in labor, being NPO was minimally stressful compared to not being active in labor.

So is restricting food and fluids during labor a technocratic ritual or based on research? Since the basis for the restriction had the foundation of research in the 1940's when

general anesthesia was the standard for cesarean sections, have we not progressed from there to the point where a significantly fewer number of women are exposed to general anesthesia for childbirth, with an even significantly fewer number of women aspirating acidic vomitus during anesthesia? Is this another case of "this is how we've always done it?"

Just some food for thought...

References/Resources:

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Websites:

[Association for Pre- & Perinatal Psychology and Health](#)

[Society for Obstetric Anesthesia and Perinatology](#)