Introduction:
Hyperemesis Gravidarum (HG), severe nausea and vomiting of pregnancy, is the most common cause of hospitalization in the first half of pregnancy and the second most common cause of hospitalization during pregnancy overall. HG can be associated with serious maternal and fetal morbidity such as Wernicke's encephalopathy, fetal growth restriction, and even maternal and fetal death.

Objective:
Hyperemesis gravidarum (HG) is commonly defined as extreme nausea and vomiting accompanied by at least a 5% weight loss. Our objective is to analyze the extent of prolonged starvation in pregnancy reported in a large cohort of women with HG and to determine the association of extreme weight loss with respect to symptoms, treatments, and maternal outcome.

Methods:
Methods: Data regarding weight loss and duration of symptoms were obtained from 2003-2005 from an HG website registry. Women who reported HG during at least one pregnancy greater than 27 weeks were included. Women with weight loss >15% were compared to women with weight loss <15% for a variety of reported symptoms, treatments, and postpartum conditions.

RESULTS:
Women reported their most severe weight loss among all their pregnancies:
- 16% lost < 5% of pre-pregnancy weight
- 27% lost 5%–10% of pre-pregnancy weight
- 46% lost 10%–20% of pre-pregnancy weight
- 10% lost >20% of pre-pregnancy weight

DURATION OF NAUSEA AND VOMITING

SYMPTOMS IMPROVED BY NAUSEA AND VOMITING
SYMPTOMS IMPROVED BY MEDICATION
SYMPTOMS LASTED UNITS TIME

Variable | Women with HG with wt loss > 15% (N=214, 28.13%) | Women with HG with wt loss < 15% (N=605, 71.87%)
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Diagnosis/Treatment
HG Diagnosed | 2.907 (1.169-4.949) | P < 0.0001
Medication | 1.900 (1.005-3.500) | P < 0.0001
IV Fluid use | 2.857 (1.574-5.012) | P < 0.0001
NPH use | 1.963 (1.391-2.707) | P < 0.0001
Doctor change | 2.537 (1.381-4.701) | P < 0.0001

Summary:
- The majority of cases in the registry lost more than 10% of their body weight due to hyperemesis.
- Only half of the cases reported improvement between 16-20 weeks, while almost a quarter of cases had symptoms that lasted until term.
- Extreme weight loss (>15%) was significantly associated with:
  1. race and residence outside the United States.
  2. change of doctor, more aggressive treatment.
  3. persistent symptoms throughout pregnancy.
  4. Increased maternal morbidity during pregnancy and persistence of related morbidity after pregnancy.

Conclusion:
Extreme weight loss is reported in a substantial portion of women with HG; the association with persistence of symptoms throughout pregnancy and even postpartum has not been previously described. Mounting literature links starvation in pregnancy to life-long consequences; the burden of HG on the developing fetus and long-term consequences to both mother and child warrant further investigation.