The aim of this study was to investigate gastric and non-gastric autonomic responses to disgusting pictures and to assess the relationship between autonomic changes, disgust sensitivity, and perceived disgust intensity. Healthy participants viewed pictures with affectively neutral or disgusting content of either a high or moderate arousal level. Electrogastrogram, electrocardiogram, and electrodermal activity were recorded, and participants' disgust sensitivity and disgust intensity were assessed. No main effect of condition on gastric myoelectrical activity was found. However, stepwise regression analyses indicated that the percentage of bradygastria predicted disgust ratings in case of the highly arousing disgust pictures. When moderately arousing pictures were shown, disgust ratings were predicted by disgust sensitivity, which in turn was predicted by the percentage of bradygastria. Heart periods and respiratory sinus arrhythmia increased to a similar extent during both the highly arousing and moderately arousing picture blocks, while a tendency for larger skin conductance responses during the highly arousing picture block was shown. The results suggest that feelings of disgust may be specifically related to increased bradygastria, which may represent a prodromal sign of vomiting.

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