Stress-induced GI motility disorders (supported by NIH RO1)

Stress is one of the most important contributing factors in the pathogenesis of functional GI disorders. Patients with serious stress frequently complain of GI symptoms and these symptoms are, at least in part, due to GI motility disorders. Restrain stress delays solid gastric emptying in rats. The inhibitory effect of restraint stress on gastric emptying is mediated via central corticotropin releasing factor (CRF), CRF$_2$ receptors and peripheral sympathetic neurons $^{46,47}$. Restraint stress augments postprandial gastric motility and impairs the coordination between the antrum and pylorus in rats $^{48-50}$.

In contrast to gastric emptying, restrain stress accelerates colonic transit in rats $^{51-53}$. The stimulatory effect of restraint stress on colonic transit is mediated via central CRF$_1$ receptors, peripheral parasympathetic neurons and 5-HT$_3$ receptors $^{51,54-57}$.


