Intestines

During Normal Functioning
- Intestines send signals to the brain about normal sensations
- Intestines remove water resulting in normal looking stool (not too hard, not too soft)

In Recurrent Abdominal Pain
- Nerves in intestines may become too sensitive causing them to send pain signals to brain in response to normal sensations (such as gas, or movement of food)
- Intestines may remove too much water (constipation) or too little water (diarrhea)

Brain

During Normal Functioning
- Brain sends messages to intestines to prompt normal contractions and digestive secretions
- Brain reduces pain signals sent from intestines

In Recurrent Abdominal Pain
- Brain may send signals to the intestines causing too much (or possibly too little) activity
- Brain may not reduce pain signals from intestines or may become too sensitive to signals from intestines

Intestinal Bacteria

During Normal Functioning
- Bacteria send signals to the brain that help maintain normal contractions in intestines
- Bacteria can affect how the brain receives information about pain from the intestines

In Recurrent Abdominal Pain
- Changes in the balance of types of bacteria in intestines may send signals to the brain and/or intestines alter
  - Normal control over intestinal functions
  - How the brain responds to signals from intestines

So, what’s the solution?
Depending on the individual, treatments are used to improve interactions between the intestines, brain, and/or intestinal bacteria. These may include treatments such as diet changes, therapies to impact the brain (such as cognitive behavioral therapy, relaxation, guided imagery), strategies to alter intestinal bacteria, and/or medications.