

# Intestinal motility

**Motility** is involuntary movement of human tubular organs. To effectively digest food, it is necessary to ensure not only the presence of effective enzymes, but also the shift and mixing of the digestion (chyme) during the passage through the digestive tract. There are several types of movements in the GIT for this purpose. Motility is not the same everywhere, so we divide it separately for the small and large intestine.

## Small intestinal motility

### Movements of the small intestine

the movements of the small intestine ensure the mixing of the digestion with the digestive juices and the shift of the digestion in the aboral direction.

#### Mixing movements

- mixing intestinal chyme with bile, pancreatic and intestinal juice

#### Swaying movement

- caused by repeated stretching and shortening of longitudinal smooth muscle in individual parts of the intestine

#### Segmentation movement

- periodically repetitive contractions and relaxation of circular smooth muscle

#### Propulsive movement

- peristaltic movement of the small intestine

## Large intestinal motility

The large intestine has two main functions:

1. absorbs residual electrolytes and water,
2. stores waste material until expulsion.

These functions do not require much activity. Therefore, the longitudinal muscle layer in the large intestine was reduced to the **taenia**. These are three strips of muscle that extend along the entire length of the intestine. Motility is then slower than in the small intestine.

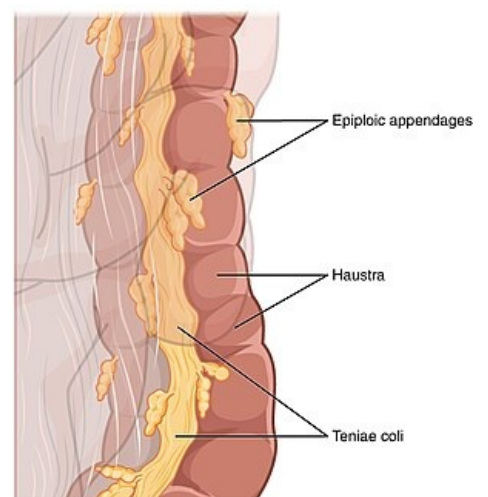
### Movements of the large intestine

#### Haustration

- Intestinal mixing movement:
  1. circular muscle contraction,
  2. contractions of taenia, which squeeze the segment with a portion of the remaining material and the **hastrum** is made → contraction increases the pressure and then the amount of water and electrolytes also increases,
  3. after 30 seconds the pressure reaches its maximum and it takes another 30 seconds for the hastrum to disappear,
  4. in a few more minutes, the hastrum begins to form on the other place and the process repeats.

#### Propulsive movement

It is mainly due to haustration, which move progressively and slowly from caecum to sigmoid. The digested material passes through the haustration of the large intestine in about 12 hours and the liquid chyme becomes a solid fecal mass.



Construction of the colon wall

## Links

## Related articles

- Small intestine
- Colon

## External links

- Gastrointestinal motility and its management [online]. [cit. 2019-02-06]. <<http://fb.lt.cz/skripta/ix-travici-soustava/2-motilita-gastrointestinalniho-traktu-a-jeji-rizeni/>>.

## Resources

- MAŘA, Patrik. *Trávicí soustava : Motilita gastrointestinálního traktu a její řízení* [online]. ©2015. The last revision 2015, [cit. 2019-02-06]. <<http://fb.lt.cz/skripta/ix-travici-soustava/2-motilita-gastrointestinalniho-traktu-a-jeji-rizeni/>>.

## References

Kategorie: Anatomie Kategorie: Gastroenterologie