

Effects of Coffee and/or Caffeine on the Gastrointestinal Tract

1. Coffee stimulates GI tract resulting in over activity

- Coffee produces laxative effects as soon as 4 minutes after drinking in susceptible individuals
- Decaffeinated coffee has similar effect therefore the laxative effect is not due to caffeine^{1,2}

2. Coffee elevates stress hormones

- Caffeine elevates stress hormones cortisol, epinephrine (adrenaline), and norepinephrine.^{3,4,5} These hormones are responsible for increased heart rate, increased blood pressure and activates the body's fight or flight response. Blood is shunted away from digestive system thus causing indigestion.
- Neural control of GI tract is affected by stress (fight or flight) and emotions.^{6,7,8}

3. Acidity of coffee irritates the intestines

- Both coffee and caffeine can stimulate the hypersecretion of gastric acids. Decaffeinated coffee is found to be even more acidic than caffeinated coffee.⁹
- Coffee tends to speed up the process of gastric emptying, which may result in highly acidic stomach contents being dumped into the small intestine too soon. This may lead to injury of intestinal tissue.¹⁰

4. Caffeine Decreases Magnesium Absorption

- Adequate magnesium in the body is important in maintaining bowel regularity.¹¹ Magnesium is also a crucial mineral which takes part in many essential roles in the body.

5. Coffee acts as a diuretic

- The diuretic effect of coffee causes excretion of fluid through the kidneys, which may lead to dehydration. Dehydration due to excess coffee may produce hard stools that are difficult to pass which may lead to constipation.¹²

6. Caffeine interferes with GABA metabolism

- GABA is a neurotransmitter that is naturally produced in the brain and GI tract. It plays an important role in mood and stress management and exerts a calming effect on the GI tract.
- Caffeine interferes with the binding of GABA to GABA receptors, thus preventing it from performing its calming effects.¹¹

Withdrawal symptoms from coffee/caffeine may include any of the following:

- headache, fatigue, decreased energy/activeness
- decreased alertness or drowsiness
- decreased contentedness
- dysphoric mood including depression and irritability
- difficulty concentrating; fogginess/not clearheaded
- flu-like symptoms of nausea, vomiting
- muscle pain or stiffness¹³

*Caffeine is considered an addictive substance and must be slowly decreased over days (or weeks if heavy user) to decrease the effects of caffeine withdrawal.



Dr. Julia Gonen, N.D.
7 hate'ena street
bnei atarot 60991
p: 050.933.6004
e: julia@gaianaturopathic.com
www.gaianaturopathic.com

Coffee substitutes:

1. **Chicory** – contains inulin, a soluble fiber which helps support healthy GI microflora. It has been used to treat abdominal cramps, vomiting and diarrhea. (slightly bitter)
2. **Carob** – a herb traditionally used for diarrhea
3. **Roasted barley** (=MugiCha in Japanese) – has soothing effect on GI tract used to treat diarrhea, gastritis and inflammatory bowel disorders. In traditional Chinese medicine barley is used to decrease disorders of dampness & phlegm.
4. **Roasted Dandelion** – supports healthy liver function.

*All of the above may be found in commercial coffee substitute products (i.e. Bambu, Teeccchino...) or may be drank alone if preferred.

Suggestions for simple teas to soothe the GI tract:

5. **Chamomile tea** – soothes GI due to its anti-inflammatory properties. It also has mild sedative properties to aid in calming an overactive system. (Caution: if ragweed allergy)
6. **Marshmallow or Slippery Elm tea** – soothes inflamed GI due to its mucilaginous properties. These herbs also have nutritive properties.

Compute your caffeine - want to know just how much caffeine you are ingesting on a daily basis?
go to http://www.gaianaturopathic.com/docs/compute_caffeine.pdf

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