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Stomach

- ↗ Maximal volume = Emptying time

Small intestine

- ↗ Length
- ↗ Permeability = Transit time

Large intestine

- ↗ Length, volume and surface
- ↗ Villi number and length
- ↗ Transit time
- ↘ Sodium absorption
- ↗ Permeability

Feces

- ↗ Faecal pH
- ↘ Faecal SCFA
- ↗ Faecal BCFA
- ↗ Total bile acids
- ↗ BA I / BA II ratio

Microbiota

Variable composition

- ↗ *Fusobacteria*

SMALL < 10 kg **MEDIUM** 10-30 kg **LARGE** > 30 kg

Healthy adult dogs



Healthy adult dogs

< 10 kg 10-30 kg > 30 kg

SMALL **MEDIUM** **LARGE**

↘ BA I \ BA II ratio

↘ Total bile acids

↘ Faecal BCFA

↗ Faecal SCFA

↘ Faecal pH

↘ *Fusobacteria*

Variable composition

Microbiota

COVER FEATURE: From Chihuahua to Saint-Bernard: how did digestion and microbiota evolve with dog sizes
Charlotte Deschamps, Delphine Humbert, Jürgen Zentek, Sylvain Denis, Nathalie Priymenko, Emmanuelle Apper, Stéphanie Blanquet-Diot



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