

Difference Between Omentum and Mesentery

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Key Difference - Omentum vs Mesentery

The <u>abdominal</u> cavity and its surrounding <u>organs</u> play a major role in the aspect of different <u>metabolic functions</u> that take place in the body. The gastrointestinal track is the most important organ system that is present in the abdominal cavity starting from the mouth and buccal cavity and ending up at the anus. The omentum and mesentery are two supporting tissues that are present in the abdominal cavity surrounding the gastrointestinal organs. **The mesentery is a supportive tissue that is rooted into the <u>intestines</u> while the omentum is a portion of fatderived supportive tissue that plays a protective role during <u>inflammation or infection</u> and it hangs in front of the intestines. This is the key difference** between the omentum and the mesentery

What is Omentum?

The omentum is termed as a layer of the peritoneum, which is a serous membrane lining the abdominal cavity and that surrounds the organs of the abdomen. The omentum could be categorized into two parts; the greater omentum and the lesser omentum. The greater omentum is considered as the largest of the peritoneal folds that are present in the body. It is a thin layer and perforated in its typical appearance and in the context of obese people, the greater omentum contains an accumulated <u>adipose tissue</u>.

Greater omentum is composed double folded peritoneum so that it appears as four layers. These layers of the greater omentum start from the region of the <u>duodenum</u> and the greater curvature of the <u>stomach</u>, extending towards the small intestines and sometimes they could be extended even up to the pelvis region. These two layers then turn on themselves, which results in four layers and covers up to the level of the transverse <u>colon</u>. At this point, the layers are separated and could be identified as single layers of the peritoneum in young individuals. But when it comes to adults, these layers are not recognized as individual layers since they are blended together in an inseparable aspect. The left and the right border of the greater omentum are continuous with the beginning of the duodenum and the gastrosplenic ligament respectively.

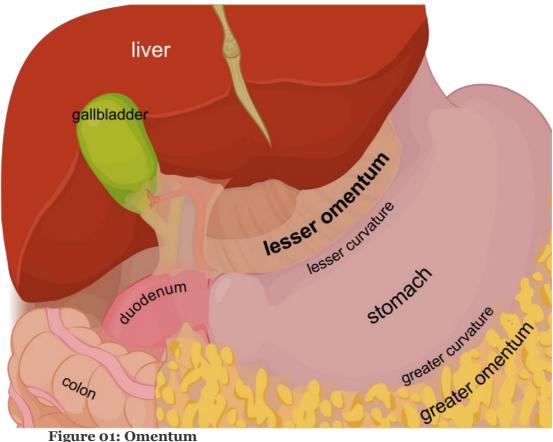


Figure 01: Omentum

The lesser omentum is also a double layered peritoneum that is extremely thin. The two-layered lesser omentum extends from the lesser curvature of the stomach (anterosuperior and posteroinferior surfaces) and the beginning of the duodenum. Once these two layers reach the regions of the upper border of the duodenum and the lesser curvature of the stomach, they are combined together and is ascended towards the porta hepatis; the transverse fissure of the liver as double folded structure. They get extended up to the end of the oesophagus where the two layers separate.

What is Mesentery?

In the context of the mesentery, it is a group of tissues developed by two folds of the peritoneum that is attached to the intestines to the abdomen walls. With the latest finding, the mesentery is newly termed as an organ. It typically arises from the root of the mesentery that is a 15 cm to 20 cm in width, which is developed from the region of duodenojejunal flexure at the left side of the secondary lumbar vertebra. Normally the root of the mesentery extends from the point of duodenojejunal flexure up to the junction of ileocaecal. This region of the small intestine is present at the centre of the abdominal cavity and is present beneath the transverse colon and the greater omentum.

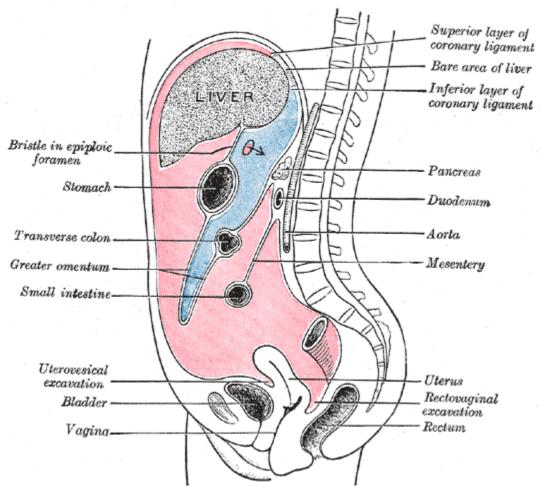


Figure 02: Mesentery

At the gastrointestinal margin, the mesentery gets attached to the colon. It is then continued as several regions of the mesocolon and could be described in different names according to the part of the mesocolon to which they get attached. Transverse mesocolon is where it gets attached to the transverse colon. Sigmoid mesocolon is where mesentery is attached to the sigmoid colon. Mesoappendix and mesorectum are the regions where it attaches to the appendix and the upper region of the rectum respectively.

What are the Similarities Between Omentum and Mesentery?

Both are supporting tissues of the gastrointestinal organs.

What is the Difference Between Omentum and Mesentery?

Omentum vs Mesentery	
Omentum is hanging fat derived tissue that	The mesentery is a supportive

Summary - Omentum vs Mesentery

The omentum and mesentery are two supporting tissues present in the abdominal cavity, surrounding the gastrointestinal organs. The omentum is a portion of fat-derived supportive tissue that plays a protective role during inflammation or infection and hangs in front of the intestines. The omentum is termed as a layer of the peritoneum, and it is a serous membrane that lines the abdominal cavity and surrounds the organs of the abdomen. The omentum could be categorized into two portions; the greater omentum and the lesser omentum. The mesentery is a supportive tissue that is rooted into the intestines. It typically arises from the root of the mesentery which is a 15cm to 20cm in width that is developed from the region of duodenojejunal flexure. At the gastrointestinal margin, the mesentery gets attached to the colon. This is the difference between Omentum and Mesentery.

Reference:

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- 2.Greater and lesser omentum | Acland's Video Atlas of Human Anatomy. <u>Available</u> here
- 3.Peritoneum, Mesentery and Omentum. Available here

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- 1.'Lesser omentum EN'By Olek Remesz (wiki-pl: Orem, commons: Orem) Own work, (CC BY-SA 3.0) via Commons Wikimedia
- 2.'Gray1035'By Henry Vandyke Carter Henry Gray (1918) Anatomy of the Human Body, Gray's Anatomy, Plate 1035, (Public Domain) via <u>Commons Wikimedia</u>

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