

Difference Between Amoeba and Entamoeba

www.differencebetween.com

Key Difference – Amoeba vs Entamoeba

Amoeba and *Entamoeba* are two species belonging to the taxonomic group amoebzoa. They are characterized by the presence of different types of pseudopods or pseudopodia including finger-like, blunt, lobose pseudopods and tubular shaped mitochondrial cristae. Amoebzoans are [unicellular](#) organisms. Amoebzoa is classified as a [phylum](#) under the kingdom [Protista](#). Most amoebzoa are free living, either in freshwater or marine water. Amoebzoans are either shelled (hard shell) or unshelled (naked cell) and vary in size with a typical diameter of 10-20 μm . ***Amoeba* is free living in freshwater, marine water and soil. *Entamoeba* is an [endoparasite](#) which resides inside a host body.** This is the key difference between *Amoeba* and *Entamoeba*. Freshwater *Amoebae* has a contractile [vacuole](#), but *Entamoeba* does not.

What is *Amoeba*?

Amoeba is a unicellular organism which has a special ability to alter their shape due to the extension and retraction of pseudopodium, which is a temporary protrusion of the [cytoplasm](#). *Amoeba* uses the pseudopod in order to accomplish motility and nutrient ingestion. They are basically found in major eukaryotic organisms: fungi, algae, and animals. It is the pseudopodium that helps *Amoeba* in movement. The pseudopod, which is a cytoplasmic extension, coordinates with actin [microfilaments](#) in order to initiate movement.

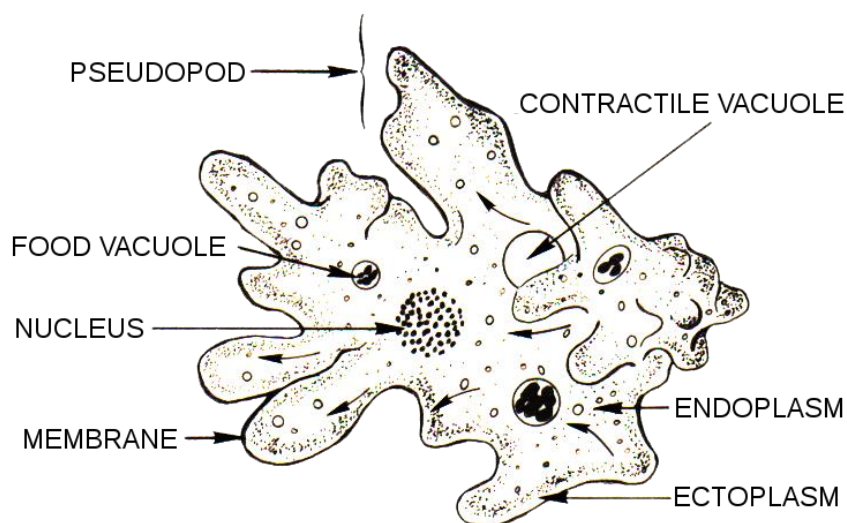


Figure 01: Amoeba

The internal structures of the pseudopod can be used to distinguish different types of *Amoeba*. Types of *Amoeba* that are free living usually occur in two forms. They either remain encased within an external hard shell or do not have a shell. A contractile vacuole which is used to maintain osmotic balance by expelling extra water is present in fresh water *Amoebae*. This is due to the low salt concentration present in the external environment (fresh water) when compared with the organisms' internal environment which initiates endosmosis. In marine *Amoebae*, the need for such vacuole is not necessary due to the equality in concentrations of solutes between the internal and external environments.

What is *Entamoeba*?

Entamoeba is a unicellular eukaryotic organism which belongs to the genus Amoebozoa. *Entamoebacells* are small and consist of a single nucleus and do not contain mitochondria. However, depending on the species, the number of nuclei and sizes vary. These features are useful for identification of different species. The life cycle of *Entamoeba* species consists of motile, feeding and reproductive trophozoite stages and also an environmentally resistant cyst stage is present if the organism is transmitting through an [infection](#). *Entamoeba* is considered as an internal [parasite](#) in vertebrates and some invertebrates. There are three species which act as parasites: *Entamoeba histolytica*, *Entamoeba nuttalli* and *Entamoeba invadens*. *Entamoeba histolytica* is a parasite present in humans while *Entamoeba nuttalli* is a parasite in non-human primates. *Entamoeba invadens* is a parasite which affects reptiles. Most *Entamoeba* can be considered as commensals since they do not cause diseases in the host. *Entamoeba coli* and *Entamoeba dispar* are two examples of commensals. A major infection which is caused by *Entamoeba histolytica* is Amoebiasis. It is asymptomatic but, intestinal and disseminated diseases caused by *E. histolytica* are rare. However, the identification of *E. histolytica* becomes complicated as there are two other similar species namely, *Entamoeba dispar* and *Entamoeba moshkovskii* in the intestinal tract. These two species are harmless as they are considered commensals.



Figure 02: Entamoeba

What are the similarities between *Amoeba* and *Entamoeba*?

- Amoeba and Entamoeba are unicellular organisms.
- Both organisms contain
- Both reproduce by binary fission.

What is the difference *Amoeba* and *Entamoeba*?

Amoeba vs Entamoeba

Amoeba is a type of cell or organism that has the ability to alter its shape, primarily by extending and retracting pseudopods.

Entamoeba is a genus of Amoebozoa found as internal parasites or commensals of animals.

Contractile vacuoles

Contractile vacuoles are present in freshwater Amoebae, but not in marine Amoebae.

Entamoeba do not possess contractile vacuoles.

Mode of Nutrition

Amoeba is heterotrophic.

Entamoeba is an internal parasite.

Habitat	
Amoeba is found in marine and freshwater.	Entamoeba lives inside a host body.
Examples	
<i>Acanthamoeba</i> is an example.	<i>Entamoeba histolytica</i> is an example.

Summary – *Amoeba* vs *Entamoeba*

Amoebozoans are unicellular organisms. They possess locomotory structures such as pseudopodia and flagella. *Amoeba* and *Entamoeba* possess pseudopods, which are extensions of the cytoplasm combined with actin microfilaments. It is used for movement and nutrient ingestion. Amoeba is free living, and the marine species possess a special contractile vacuole in order to maintain osmotic balance. They are heterotrophic organisms. *Entamoeba* is pathogenic and survives inside a host body. They are endoparasites. Unlike *Amoeba*, they do not possess a contractile vacuole. This is the difference between Amoeba and Entamoeba. They share common characteristics such as being unicellular organisms, the presence of pseudopods and reproduction through binary fission.

References:

1. Vidyasagar, Aparna. "What Is an Amoeba?" LiveScience, Purch, 2 Apr. 2016, [Available here](#). Accessed 22 Aug. 2017.
2. "Entamoeba and Entamoeba histolytica." Encyclopedia of Life Sciences, [Available here](#). Accessed 22 Aug. 2017

Image Courtesy:

1. "Amoeba (PSF)" By el:User:Kupirijo – Amoeba_(PSF).png ([CC BY-SA 3.0](#)) via [Commons Wikimedia](#)
2. "Entamoeba histolytica" By Stefan Walkowski – Own work ([CC BY-SA 3.0](#)) via [Commons Wikimedia](#)

How to Cite this Article?

APA: Difference Between Amoeba and Entamoeba. (2017, August 23). Retrieved (date), from <http://differencebetween.com/difference-between-amoeba-and-vs-entamoeba/>

MLA: "Difference Between Amoeba and Entamoeba" *Difference Between.Com*. 23 August 2017. Web.

Chicago: “Difference Between Amoeba and Entamoeba” *Difference Between.Com*. <http://differencebetween.com/difference-between-amoeba-and-vs-entamoeba/> accessed (accessed [date]).



Copyright © 2010-2017 Difference Between. All rights reserved