



Entamoeba histolytica



Entamoeba histolytica is the causative agent of the worldwide occurring entamebosis.

The vegetative stages (trophozoites) of Entamoeba histolytica live in the large intestine and form encysted stages (cysts) that are excreted with feces.

The trophozoites can penetrate into the intestinal wall and invade the liver and other organs to produce clinical forms of amebosis, most frequently intestinal amebosis and hepatic amebosis (amoebic liver abscess).

Clinical symptoms can develop as early as 2-4 weeks after infection or after asymptomatic periods of months or even years.

The following intestinal forms occur:

- The invasive intestinal form results from the invasion of the intestinal wall by the pathogen and reflects large intestine disease. The acute disease usually begins with abdominal discomfort and episodes of diarrhea of varying duration, at first mushy the increasing mucoid, including blood-tinged stool. The symptoms may abate spontaneously, but fairly often a recidivating chronic colitis develops that can last for months or even years.
- In most cases the asymptomatic intestinal form runs asymptomatic. The infection is casually diagnosed with a stool test (Trophozoites and more frequent cysts in stool).
- Extraintestinal forms appear in ca. 30 % of all infections. The most frequent form is the so called "liver abscess", the spread of amoebas in liver. The liver abscess causes remittent fever (sometimes high), upper abdominal pain, liver enlargement, elevation of the diaphragm, general weakness and other symptoms. Large liver abscesses that are not treated in time are often lethal.

Infections of Entamoeba histolytica occur worldwide, prevalent in warmer countries. In endemic areas in Africa, Asia and Central and South America up to 70-90% of the population can be carriers of Entamoeba histolytica. The infection is transmitted by cysts from one human to another due to transmission of mature cysts with contaminated foods (fruit vegetables), drinking water or fecally contaminated hands. Flies and cockroaches can function as intermediaries by carrying cysts from the feces of an excretor to foods. Worldwide the annual number of new cases is estimated at 48 million, with about 70 000 lethal outcomes (WHO, 1998).

Species	Mechanism of infection	Symptoms	Complications	Diagnostic
Entamoeba histolytica	Peroral ingestion, drinking water, foods	With more than 90% no (asymptomatic, intestinal form) blood-tinged stools, diarrhea, sepsis	Abdominal bleeding, colitis, liver abscess, peritonitis	Microscopy Serology Clinical methods (Ultrasound, computer tomography, etc.)

Infections may be diagnosed by:

Microscopy: Determination of parasites in stool

Serology: Determination of specific antibodies based on the ELISA-technique

NovaLisa™ Entamoeba histolytica IgG ELISA:

The NovaLisa™ Entamoeba histolytica IgG ELISA is intended for the qualitative determination of IgG-class antibodies against Entamoeba histolytica in human serum or plasma (citrate).

Antigens:

Purified Entamoeba histolytica Trophozoit antigens

Specific performance characteristics:

	Intraassay			Interassay			Sensitivity %	Specificity %
	n	Mean	CV %	n	Mean	CV %		
IgG	7	0,609	2,1	6	0,604	3,9	>95	>95

Order information:

ELISA	Number of determinations	Product number
Entamoeba histolytica IgG	96	ENTG0140