Fish Parasite on FAO List of Human Health Concerns

A 'Top Ten' list identifying the food-borne parasites of greatest global concern has been released by the Food and Agriculture Organization (FAO) of the United Nations, and new guidelines are being developed to control them.

The parasites affect the health of millions of people every year, infecting muscle tissues and organs, causing epilepsy, anaphylactic shock, amoebic dysentery and other problems. Some can live on in our bodies for decades.

Despite their huge social costs and global impacts, information is generally lacking regarding just where these parasites come from, how they live in the human body, and – most importantly – how they make us sick.

As a first step in tackling the problem, the UN's Food and Agriculture Organization (FAO) and World Health Organization (WHO) are initially focusing on the ten food borne parasites with the greatest global impact. The rankings contained in today's FAO-WHO report, Multicriteria-based ranking for risk management of food-borne parasites, are based on the parasites' burden on human health and other factors, and includes information on where they can be found.

The top ten are:

1. *Taenia solium* (pork tapeworm): In pork
2. *Echinococcus granulosus* (hydatid worm or dog tapeworm): In fresh produce
3. *Echinococcus multilocularis* (a type of tapeworm): In fresh produce
4. *Toxoplasma gondii* (protozoa): In meat from small ruminants, pork, beef, game meat (red meat and organs)
5. Cryptosporidium spp.(protozoa): In fresh produce, fruit juice, milk
6. *Entamoeba histolytica* (protozoa): In fresh produce
7. *Trichinella spiralis* (pork worm): In pork
8. Opisthorchiidae (family of flatworms): In freshwater fish
9. Ascaris spp. (small intestinal roundworms): In fresh produce
10. *Trypanosoma cruzi* (protozoa): In fruit juices

The list and supporting report were developed following a request by the global food standards body, the Codex Alimentarius Commission (Codex), for FAO and WHO to review the current status of knowledge on parasites in food and their public health and trade impacts.

FAO's food safety and quality unit and WHO responded by jointly organizing a global call for information on the problem.

Twenty-two nations and one regional body responded, followed by an assessment and analysis by 21 experts on the impact of food-borne parasites.

From this work, an initial list of 93 parasites was developed.

The list was then narrowed down to the 24 most damaging parasites based on the following criteria:

- number of global illnesses
- global distribution
- acute morbidity
- chronic morbidity and
- economic impact.

What Next?

The Codex Committee on Food Hygiene is now developing new guidelines for the control of these parasites. FAO and WHO are supporting the process by providing scientific and technical information.

The aim is to develop new standards for the global food trade that will help countries control the presence of these parasites in the food chain.

"Obviously this top ten is a more general, global perspective and does not necessarily reflect parasite rankings at a national level where each country may have more precise information," said Renata Clarke, head of food safety and quality at FAO.

"But considering the problems they cause, these parasites do not get the attention they deserve. We hope that by releasing a top ten ranking we can increase awareness among policy makers, the media and the general public about this major public health issue," she added.

The FAO-WHO report lists a number of ways to reduce the risk of parasite infections. For farmers, it advises the use of organic fertilizer, particularly on produce, should be closely monitored to ensure it is composted properly and all fecal matter is removed. Water quality must also be closely monitored. For consumers, it advises that all meat should be well cooked and only clean water should be used to wash and prepare vegetables.

Parasites by Continent

Classified biologically as protozoa and helminths (but better known as tapeworms, flatworms and roundworms), it is difficult to know how widespread parasites are globally because in many countries it is not compulsory to notify public health authorities of their presence.

In Europe, more than 2,500 people are affected by food borne parasitic infections each year. In 2011 there were 268 cases of trichinellosis and 781 cases of echinococcosis recorded in the EU.

In Asia, there is no precise national data but parasitic diseases are known to be widely spread and are recognised as major public health problems in many countries.

In most African nations there is no data at all on the prevalence of foodborne parasites in humans because there of a general lack of surveillance systems.

In the United States, Neurocysticercosis, caused by *Taenia solium*, is the single most common infectious cause of seizures in some areas of the US where 2,000 people are diagnosed with neurocysticercosis every year. Toxoplasmosis is a leading cause of food-borne illness and death.

Original source: FAO report - www.fao.org/news/story/en/item/237323/icode/

Source : http://www.thefishsite.com/fishnews/23528/fish-parasite-on-fao-list-of-human-health-concerns#sthash.tRgD9fI3.dpuf (02/07/2014)