



If consumed while half-cooked or when poorly handled, fish and other aquatic creatures carry germs which can cause infections in humans. FILE PHOTO.

UNHYGIENIC FISH COULD LEAD TO TUBERCULOSIS INFECTION

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You have walked into that office and what welcomes cases, it is fish. Some people have gone as far as taking these aquariums into their homes and you will find them placed in one of the living room corners. I must admit it is a beautiful scene watching the fish swim from one point to another either in a playful mood or in search of food.

But also because fish is a delicacy on many family meals, it has become a farming business with some people creating ponds in their home compound to make a buck out of it.

There is also this frog that keeps hopping around the house from the neighbouring waterlogged places. We are so accustomed to it that we hardly think that it could be a threat to our lives. But now scientists warn that this fish and the frogs that have become part of our home settings can be a threat to human health.

From animals to humans

For instance, Prof Robinson Ndegela, Sokoine University of Agriculture in Tanzania, says what many people do not know though, is that some fish are infected with mycobacterium marinum, which causes tuberculosis in fish and that they can easily contract this fish TB if there is no proper cleaning and cooking. The scientist also said that it has also been confirmed that some frogs have pathogens that cause brucellosis.

"There are emerging pathogens in animals in aquatic, air and terrestrial environment with detrimental emerging diseases that reduce people's lifespan. These pathogens in aquatic animals can cause zoonotic illness," Prof Ndegela

warned.

Adding: "There is brucellosis in frogs and Tuberculosis in fish. We must be cautious about the animals we get in contact with and bring into our homes because we don't know where these outbreaks will come from."

Zoonotic refers to those diseases that can be passed between animals and humans. This means that if the fish or frog has the disease, they can easily transfer it to humans because of their daily contact.

His counterpart, Prof William Bazeyo of Makerere University School of Public Health, explained in an interview that the mycobacterium marinum, which causes TB, can survive in fresh, warm, cold or salty water and soil for a long time. This means that the fish can get sick and stay lurking in aquariums without the aquarist or fisherman ever realising.

Reducing risk of infection

He advises people to use hand gloves when handling fish to protect them from direct contact with the fish during the cleaning process, to avoid eating roasted fish, the gills and some parts of the head like the eyes because the organisms usually hide in these internal parts. It is also important to wash hands with soap after touching fish and ensuring the fish is well cooked before eating.

"We buy fish every day. We are not even aware that fish can have TB which we can contract. If you tell somebody that you have bought fish and it could have TB, 90per cent of the people will say no because these are unknown sources of TB. Fish TB organisms usually hide in the fish internal organs and they don't die," Prof Bazeyo said.

He added: "Make sure the internal parts of the fish are properly removed. But we see people eating the gills and sucking the eyes. These areas are very difficult to penetrate

with fire especially when you roast the fish. People who come into daily contact with fish get its mucus on their hands and fingers. They eat with unwashed hands and contaminate the food."

Those most at risk are the fishermen, fish exporters, those who eat roasted fish and children.

Unlike beef which is tested for diseases before consumption, Prof Bazeyo said it is difficult to tell whether the fish has TB or not because there are no examinations done on fish prior to taking it to the market.

But Dr Andrew Tamale, Makerere University public expert on fish related issues asked the public to watch out for fish with nodules, wounds and those that have wasted away as some of the signs that the fish could be sick.

He added that his first study on fish diseases in Uganda was carried out in 2006 where he established that most of the diseases fish suffer from have a relationship to humans. However, there is an assumption by many people that because the fish is coming from water, it is clean.

Poor fish handling dangerous

"Fish lives in an environment that has a lot of microorganisms. Many people go to the market to buy fish and find they have wounds but continue to purchase them. They are not aware that fish can get sick. There are those wounds on the fish skin that don't heal. This could be a manifestation that the fish is sick and people should avoid contact with such," Dr Tamale said.

He added: "Scaling fish, swimming into the lake and ponds with wounds expose people to fish TB."

For frogs, Prof Bazeyo explained that they spread brucellosis to humans through eating contaminated animal food like milk and meat. For instance, he added that if a cow eats grass or drinks water which has secretion from an infected