

Continuous consumption of pangasius exposes to dangerous mercury levels

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The pangasius, originally from Vietnam, is one of the most popular fish in the world due to its low cost, mild flavor and fillet presentation without skin or bones. It is especially requested in school canteens and senior centers. But a toxicological evaluation carried out by a team of Spanish scientists now shows that the mercury content in some samples exceeds all limits, so the consumption of other fish in the child population is recommended.

However, the concern with the *Pangasius hypophthalmus* does not involve its nutritional profile, but rather its high concentration of mercury. The [fish](#) comes from the Mekong River in Vietnam, one of the longest tributaries in the world, and also one of the most polluted due to the presence of pesticides and other chemical compounds used in rice crops, or human activities such as deforestation.

As a consequence, the animal itself, an omnivorous fish and an apex predator, is also highly contaminated, according to several reports, including one from the World Health Organization. *Pangasius hypophthalmus* tends to accumulate higher concentrations of metals such as mercury.

"The consumption of this fish could expose the share of the population most sensitive to contaminants that could be in this species," says Ángel J. Gutiérrez Fernández, professor of the Toxicology Department at the University of La Laguna.

To assess the toxic risk due to mercury that could result from eating pangasius, a team of researchers from the Canary Islands (Spain) has analyzed a total of 80 samples of frozen fillets stored in three large areas and available to consumers in natural or marinated forms.

Mercury limits exceeded

The results of the study, published in the *Chemosphere Journal*, reveal that some specimens, especially in their marinated presentations, exceed the maximum admissible concentrations set by European legislation at 0.5 mg / kg (Regulation (EC) Nr. 1881/2006 of the Commission, of December 19, 2006), establishing the maximum content of certain contaminants in food products.

"It is necessary to exhaustively control the [mercury content](#) in this type of fish," says the researcher. The analysis, performed by cold vapor atomic absorption spectrophotometry, shows a wide range of mercury concentrations between 0.10-0.69 mg / kg, with average value of 0.22 mg / kg.

According to the researchers, although there were no significant differences between supermarkets, the average concentration of mercury in the marinade presentation (0.18 mg / kg) was higher than that obtained in the natural pangasius (0.16 mg / kg).

"Once these data have been obtained and assuming a weekly consumption of 350 grams of pangasius, the percentage of contribution to the Tolerable Weekly Intake (TWI) of mercury (4 µg / kg bw / week) is 32% and 27.5% for women and men, respectively," says Gutiérrez.

The researchers conclude that in cases where the maximum permitted [concentration](#) is exceeded, and after continued consumption, there may be a health risk due to the accumulation of [mercury](#) in adults and, above

all, in children. For the latter, they recommend the consumption of other fish instead of pangasius, also because of its low nutritional contribution.

More information: María Rodríguez et al. Assessment of mercury content in Panga (*Pangasius hypophthalmus*), *Chemosphere* (2017).

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