

## Risk assessment of maca-containing food supplements

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The maca plant (*Lepidium meyenii* Walp.) belongs to the family of root tubers and comes from the high altitudes of the Peruvian Andes. The indigenous population eats the fresh tubers of the plant after heating them or they are dried and further processed for instance as flour. For some years now maca-containing products have been on sale in Germany as food supplements, in particular on the Internet. In some cases it is claimed that the capsules, sugar-coated tablets and lozenges increase potency, fertility and libido. They are also said to improve the performance of athletes. As the Federal Institute for Risk Assessment (BfR) has received several inquiries about maca-containing products, the Institute undertook a health assessment of the root tuber.

In the scientific literature there are only very few studies which can be used for a health assessment of maca. There are no systematic studies. When maca or maca extracts were administered in some animal experiments, effects on the sexual organs and on the hormone balance were observed. This could lead to adverse effects. In the available scientific literature there is no concrete evidence of adverse effects resulting from maca consumption by human beings although the database is insufficient. Based on the data available at the present time, no safe intake of maca from food and food supplements can be derived.

The full version of the BfR Opinion in German is available on [http://www.bfr.bund.de/cm/208/risikobewertung\\_macahaltiger\\_nahrungsergaenzungsmittel.pdf](http://www.bfr.bund.de/cm/208/risikobewertung_macahaltiger_nahrungsergaenzungsmittel.pdf)