

Fish consumption in relation to national advice in pregnant women in England

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Guidance on foods to limit or avoid in pregnancy is provided on the NHS website for England⁽¹⁾. Advice on fish consumption is related to exposure to mercury, which may have adverse effects on fetal neurodevelopment, as well as to dioxins and polychlorinated biphenyls. The advice includes avoidance of shark/marlin/swordfish, limiting oily fish to two portions per week, and a limit of two tuna steaks or four medium-sized cans of tuna per week. However, the effectiveness of this advice has not been evaluated. There is concern that complexity of the guidance, together with risk aversity, could lead women to avoid eating fish and thereby miss out on the likely beneficial effects of its nutritional content (iodine, vitamin D, long-chain fatty acids, etc.)⁽²⁾. Our aim was to provide evidence to inform development of the guidance in order to minimise exposure to toxins while preserving nutrient intakes^(3, 4).

Postpartum women (≤ 12 months) resident in England for ≥ 6 months of pregnancy were invited to complete an online questionnaire. Questions included: (1) demographics; (2) fish consumption before and during pregnancy using food frequency questions; (3) knowledge of the guidance and sources of information. Ethics approval was given by the University of Bristol. The study is part of a larger mixed methods study on dietary exposure to toxic metals (PEAR Study).

The questionnaire was completed by 598 women. During pregnancy, 17% (100/598) women never ate fish, of whom 53% (53/100) were vegan/vegetarian without fish/avoided fish for religious reasons. 23% (135/597) ate fish less often in pregnancy and 4% (22/497) ate fish before pregnancy but avoided it completely during pregnancy. The main reason for eating less fish during pregnancy or avoiding it completely was the health of the baby (67% (90/135) and 55% (12/22), respectively). The main sources of information were the NHS website and midwives. 74% (441/598) did not eat ≥ 2 portions of fish per week and 78% (465/598) did not eat at least one portion of oily fish per week as recommended. 98% (581/593) ate tinned tuna once a week or less, and 92% (537/587) never ate fresh tuna. 99% (595/598) avoided shark/marlin/swordfish.

Information provided on the NHS website is a key source of information on fish consumption for pregnant women. There was evidence that some women were more likely to avoid fish altogether or reduce consumption during pregnancy. This is being explored further with in-depth interviews.

Although compliance with the message to avoid specific high-mercury/high-pollutant fish species is good, few participants ate at least two portions of fish per week as recommended overall, and fewer still at least one portion of oily fish. These messages need to be shown prominently in NHS guidance to enable benefit from the nutritional content of fish.

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References

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