Frequently Asked Questions

What is the purpose of the NRVs and why are they important?

The Nutrient Reference Values (NRVs) are guidelines that describe how much of each nutrient – like selenium – people need to stay healthy. They are used by health professionals to assess and plan diets for individuals and groups, ensuring that people get enough nutrients for normal growth, development, and functioning, while also avoiding excessive intakes that could be harmful. NRVs are tailored to different life stages and physiological needs, such as childhood, pregnancy, and older age, making them a practical tool for targeted nutrition advice.

NRVs play a crucial role in informing public policy and population health strategies. They underpin national dietary guidelines, food fortification programmes (like adding iodine to salt or bread), food labelling, and nutrition education campaigns. Policymakers use NRVs to monitor the nutritional status of the population, identify at-risk groups, and develop interventions to address public health issues related to nutrition. By providing a scientific foundation for both individual nutrition and public health decision making, NRVs help to improve the overall health of the population and reduce the burden of diet-related diseases in Australia and New Zealand.

Do the NRVs describe individual nutritional requirements?

The NRVs are developed based on averages for groups, and therefore they describe population-level recommendations. Although they provide a guide for assessing the likelihood that a person's nutritional needs are being met, the NRVs are not a precise measure of individual needs, which may be higher or lower than the values shown. Individual requirements vary depending on genetics, health status, activity level, developmental stage and other factors.

What do the different NRV recommendations represent, and how are they calculated?

The NRVs include several different types of recommendations, each with a specific purpose. These values are calculated by reviewing scientific studies on how much of a nutrient is needed to maintain health, prevent deficiency, and avoid harmful effects from excess (toxicity).

The Estimated Average Requirement (EAR), Recommended Dietary Intake (RDI) and Adequate Intake (AI) are designed to ensure people get enough of a nutrient to support normal growth and health, but they serve slightly different purposes. Because people's nutritional needs can differ due to factors like age, sex, health status, and activity level, the NRVs include both an EAR and an RDI to account for this natural variation within the population.

The EAR is the daily amount of a nutrient estimated to meet the needs of half of the healthy people in the Australian and New Zealand population. The RDI is set higher than the EAR, at a level that is sufficient for nearly everyone (97–98% of healthy people) in the population. An AI is used as a recommended nutrient intake level when there is not enough evidence to establish an EAR and RDI.

By providing both values, the NRVs allow health professionals to assess the likelihood of deficiency in groups (using the EAR) and to set a safe target for individuals (using the RDI). This approach helps ensure that dietary recommendations are both practical for population health and flexible enough to guide individual dietary planning.

The Upper Level (UL) aims to prevent harmful effects that may occur when too much of a nutrient is consumed. It represents the highest intake of a nutrient that is likely to pose no adverse health effects for almost all people within the population.

These values are determined by reviewing scientific research on how much of a nutrient is needed to maintain good health, as well as how much could be excessive. In situations where there isn't enough data for a particular group (such as children), recommendations may be adapted from another group (such as adults). This adaptation uses mathematical formulas that account for the differences in nutritional needs between the groups, ensuring the values are as appropriate as possible for each population.

What happens if you consume too much or too little selenium?

Selenium is a trace mineral that our bodies need in small amounts to stay healthy. It helps protect our cells, supports our immune system, and is important for thyroid health. Not getting enough selenium can lead to health problems affecting the heart, muscles, joints, and immune system.

Too much selenium is rare, but it can occur if you eat a lot of Brazil nuts (which are very high in selenium) or take too many selenium supplements. Excess selenium can cause symptoms like nausea, stomach pain, trembling, muscle cramps, hair loss, brittle nails, changes in tooth colour, and feeling tired or weak.

What changes are proposed under the revised recommendations?

The current (2006) selenium NRVs include:

- Adequate Intakes (AIs) for infants
- Two recommendations for achieving nutritional adequacy and preventing selenium deficiency – the Estimated Average Requirements (EAR) and Recommended Dietary Intake (RDI)
- Upper Levels (UL) that should not be exceeded to prevent harmful effects from excess selenium.

The main changes proposed relate to the UL, with the EAR and RDI unchanged. Changes include:

- lower Upper Level (UL) recommendations for most age groups

There are also additional categories of age groups aligned with school levels. These can be used to report against usual intake estimated in national surveys. The values for children are calculated from adult levels based on a proportion of weight, adjusting for additional needs for growth where required. AIs for infants were not reviewed in this update.

What are the new recommendations for preventing selenium deficiency?

- The proposed recommendations for preventing deficiency are largely unchanged from current recommendations as they were not reviewed in this update.

The draft recommendations introduce additional categories of age groupings for children, including categories that align with school level, and a slight adjustment to adult age groups.

What are the new recommendations for selenium Upper Levels (UL)?

The draft recommendations introduce a lower Upper Level (UL) for selenium based on more recent evidence, which is consistent with NHMRC's Australian Drinking Water Guidelines and recent international selenium guideline updates. The revised UL recommendations are as follows.

Age	UL (µg/day)
Infants	
0–6 months	45
7–12 months	60
Children & Adolescents	
1 to under 4 years	100
4 to under 9 years	150
9 to under 14 years	235
14 to under 18 years	305
Adults	
18 years and older	330
Pregnancy & Lactation	
Pregnancy (all ages)	330
Lactation (all ages)	330

Why has the UL been reduced?

The Upper Levels (UL) have been lowered across population groups from 400µg/day to 330µg/day for adults, based on updated evidence that aligns with NHMRC's Australian Drinking Water Guidelines and recent international updates. Values for children and adolescents have been calculated from adult levels based on a proportion of weight.

Why are there additional age groups for children?

New UL, EAR and RDI recommendations for additional age groupings have been added that align with school levels to accommodate reporting against usual dietary intake by Australian Bureau of Statistics.