

Get to Know

Why Micronutrients Matter in a Native Diet

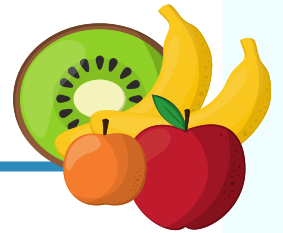


DID YOU KNOW?

That fewer than 1 in 10 children and adults consume the daily recommended amount of vegetables.



Only 4 in 10 children and less than 1 in 7 adults eat the recommended daily amount of fruit.



SO, WHAT ARE MICRONUTRIENTS?

Micronutrients (often referred to as vitamins and minerals) are vital to healthy development.

WHY IT MATTERS?

While some vitamins, such as Vitamin D, are produced by the body, other micronutrients are **NOT** produced in the body and **must** be derived from a person's diet. If a person is lacking fruits and vegetables (and therefore micronutrients) in their diet, they can suffer significant health consequences.

This can:

- Interfere with fetal development, leading to lifelong health and wellness problems for a child.
- Result in mental impairment, leading to lifelong problems in school and work.
- Interfere in healthy vision, leading to problems with eyesight.
- Hurt their immune system functioning, making them more prone to infections.
- And much more!

Globally more than half of the children younger than 5 years of age suffer from vitamin and mineral deficiencies!

References

<https://www.cdc.gov/nutrition/micronutrient-malnutrition/micronutrients/index.html#:~:text=Micronutrients%2C%20often%20referred%20to%20as,derived%20from%20the%20diet.>

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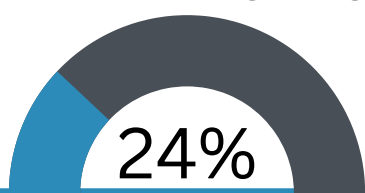
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Why Nutrition is a Pressing Concern for American Indians

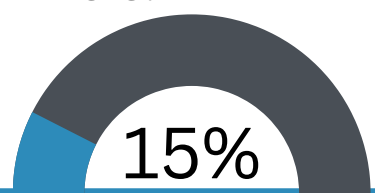


DID YOU KNOW?

In 2021, more than 24 percent of AI/AN households were below the federal poverty line, compared to 15 percent of the U.S. population as a whole.



VS



Limited funds mean limited access to **nutritious foods** such as **fresh fruits** and **vegetables** or **whole grain carbohydrates**, which are often more expensive than commodity goods like flour or shortening.

“The bottom line is poverty,”

confirms Kahti DeWilde, licensed nutritionist and director of the WIC program for the S’Klallam Tribe in Port Gamble, WA.

“It’s lacking the funds to be able to spend money on appropriate foods.”

Higher poverty, means:

- Less access to more expensive, healthy and nutritious foods; *and*
- Higher rates of nutritional deficiencies in micronutrients; *and*
- Higher rates of preventable diseases and health problems.

A high percentage of Native American communities are located in **“food deserts,”** defined as a low-income area where the nearest supermarket is over a mile away, making obtaining fresh foods that much more difficult.

Arizona is home to **significant food deserts.**

In the 1830s and 1840s, under the Indian Removal Act, Native American Tribes signed treaties with the U.S. government that relegated them to reservations. This relocation also removed Native people from their usual food sources and their active lifestyles that hunting and gathering required.



References

<https://www.foodsafetynews.com/2012/03/nutrition-a-pressing-concern-for-american-indians/>



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What Micronutrients are & why they're Important –

The role of 6 micronutrients -

Iron	<ul style="list-style-type: none">• Iron is crucial for brain development. Children and pregnant women are especially vulnerable to the consequences of iron deficiency.• Iron deficiency is a leading cause of anemia, defined as low hemoglobin concentration. Anemia affects 40% of children younger than 5 and 30% of pregnant women globally.
Vitamin A	<ul style="list-style-type: none">• Vitamin A supports eyesight and immune system functions. Children who suffer from vitamin A deficiency face an increased risk of blindness and death from infections such as measles and diarrhea.• Globally, vitamin A deficiency affects an estimated 190 million preschool-age children.
Vitamin D	<ul style="list-style-type: none">• Vitamin D builds strong bones by helping the body absorb calcium, helping protect older adults from bone conditions such as osteoporosis.• Vitamin D helps the immune system resist bacteria and viruses.• Vitamin D is essential for muscle and nerve functioning.• All children need vitamin D after being born.
Iodine	<ul style="list-style-type: none">• Iodine is required during pregnancy and infancy for the infant's healthy growth and cognitive development.• About 86% of households worldwide consume iodized salt. Globally an estimated 1.8 billion people have insufficient iodine intake.
Folate	<ul style="list-style-type: none">• Folate, also known as vitamin B9, is needed to make new cells daily. Folic acid is another form of vitamin B9.• Folate is essential in the earliest days of fetal growth for the healthy development of the brain and spine.• Ensuring sufficient folate levels in women before conception can reduce neural tube defects, which can complicate a baby's life and potentially be fatal.
Zinc	<ul style="list-style-type: none">• Zinc promotes immune function and helps people resist infectious diseases like diarrhea, pneumonia, and malaria.• Globally, 17.3% of the population is at risk for zinc deficiency due to dietary inadequacy; up to 30% of people are at risk in some regions of the world.• Providing zinc supplementation to children younger than 5 years is a highly cost-effective intervention in low and middle-income families.

References

<https://www.cdc.gov/nutrition/micronutrient-malnutrition/micronutrients/index.html#:~:text=Micronutrients%2C%20often%20referred%20to%20as,derived%20from%20the%20dietl>



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What Foods are Micronutrients Found In –

6 micronutrients and foods they are found in -

<i>Iron</i>	<ul style="list-style-type: none">• Iron is found in 2 forms. Heme and non-heme, animal based and vegetarian based (respectively).• Heme examples are beef, tuna, animal organs, oysters, clams, and mussels.• Non-heme examples are beans, lentils, spinach, nuts, seed and breakfast cereals.
<i>Vitamin A</i>	<ul style="list-style-type: none">• Vitamin A is found in leafy green vegetables (kale, spinach, broccoli), orange and yellow vegetables (carrots, sweet potato), liver, fish, eggs and dairy products.
<i>Vitamin D</i>	<ul style="list-style-type: none">• Vitamin D is added to many breakfast cereals and to some brands of orange juice, yogurt, margarine, milk-alternatives (i.e. almond and soy milks) and other food products.• Fatty fish (like trout, salmon, tuna, and mackerel) and fish liver oils are among the best natural sources of vitamin D.
<i>Iodine</i>	<ul style="list-style-type: none">• Iodine is found in table salt.• Seaweed (such as kelp, nori, kombu, and wakame) is one of the best food sources of iodine.
<i>Folate</i>	<ul style="list-style-type: none">• Folate is naturally present in a wide variety of foods, including vegetables (especially dark green leafy vegetables), fruits and fruit juices, nuts, beans, peas, seafood, eggs, dairy products, meat, poultry, and grains
<i>Zinc</i>	<ul style="list-style-type: none">• Zinc is found in meat, fish, and seafood.• Oysters contain more zinc per serving than any other food, but beef contributes 20% of zinc intakes from food in the United States because it is commonly consumed. Eggs and dairy products also contain zinc.

Disclaimer: Check with your healthcare provider before consuming supplements.

References

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2585731/>