

Niacin- Vitamin B3

Support for Mood, Cardiovascular System, Skin

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Niacin (NA), also known as vitamin B3, nicotinic acid, or vitamin PP, is the most important compound of the B-vitamin complex group. It is an organic and water-soluble vitamin that possesses a dual electric charge. Upon ingestion, niacin is biosynthetically converted to nicotinamide adenine dinucleotide (NAD) [[1](#)]. Depending on the exogenous supply, NAD then performs myriad biological functions and has a central role in redox reactions [[2](#)].

Niacin> NAD has a central role in redox reactions- we will see why that is currently important on the next slide.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7436124/>

“It seems that gut microflora modulates the availability of niacin once ingested, with gut metabolism proving to be directly correlated with a fulminant production of reactive oxygen species in case of a dysbiosis. Studies performed on COVID-19 have also offered novel insights regarding the underlying interaction mechanisms between COVID-19, the gut, and proinflammatory cascade(s)”

fulminant: severe and sudden onset

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7436124/>

History of Niacin in the Clinic

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7217386/>

- Dr. William Kaufman- first physician to therapeutically use megadoses of B3 (5000 mg niacinimide daily) for joint pain and arthritis
- Showed how a single nutrient deficiency could cause diverse diseases like arthritis or ADHD.
- Carl Pfeiffer: 1974. Most important contribution was niacin for schizophrenia- studies on over 20,000 schizophrenic patients
- “Nutrition and Mental Illness”
- “If there’s a drug that can alter the brain’s biochemistry, there’s usually a combination of nutrients that can achieve the same thing without side effects”
Pfeiffer, 1973

Vitamin Giant

Abram Hoffer, MD, PhD

- conducted the first double-blind, placebo controlled studies in the history of psychiatry.
- Showed Vitamin B3 can cure schizophrenia
- “For schizophrenia, the natural recovery rate is 50%. With drugs, it is 10%. With orthomolecular medicine (define) the recovery rate is 10%.”
- “ I have been convinced for a long time that if we add 100mg of B3 to our diet, there would be a major decrease in the incidences of schizophrenia, as well as...hyperactivity and learning and behavioral disorders in children.”

Anxiety

- Niacin is a sedative
- unregulated production of serotonin
- decreases lactic acid levels in the blood (studies of individuals prone to panic disorders can be triggered with infusions of sodium lactate).

Niacin in AA

- Bill Wilson, founder of AA- met Abram Hoffer in 1960
- at 3000 mg niacin daily, the depression and fatigue that plagued him for years was gone.
- He gave it to 30 of his close friends in AA.
- Of the 30, 10 were free of anxiety, tension and depression in 1 month
- 10 more were free in 2 months.

Chronic Kidney Disease

- CKD observed in over 68% of Americans over 60 years
- Progressive loss of kidney function moving toward End-Stage Renal Disease
- 9th leading cause of death in the US
- look for creatinine derived glomerular filtration rate (eGFR) on blood work
 - mild kidney damage: eGFR 90+
 - mild loss of kidney function: eGFR 60-89
 - moderate loss of kidney function: eGFR 30-59
 - severe loss of kidney function: eGFR 15-29

Standard Treatment

- targeted control of blood sugar imbalance
- reduction of high serum phosphorus
- excessive phosphorus toxic to kidneys and other organs
- phosphorus is a primary initiator of vascular calcification
- niacin as effective for hyperphosphatemia



“Clinical research proves the niacin stimulated pathways involving increased NAD synthesis, PCSK9 inhibition, sodium transporter effects, PPAR gamma activation, and more, are exceptionally well-suited to addressing CKD, multi morbidity, and ultimately all-cause mortality”.

“The out of pocket cost of CKD is greater than cancer and stroke with ESRD dialysis costing 30.9b per year 2013 or approximately 7.1 % of total Medicare costs. Medical spends approx \$250,000/y for every CKD patient, prior to the transition to...dialysis”.

“These problems and their associated costs can be reduced by using 5 cents per day of niacin”.

SIMPLIFIED 14 DAY RESET

The Essential Vitamins

DAY 9: B3: NIACIN

jw
JENNIFER
WOODWARD
NUTRITION



B3: Niacin

METABOLIZING FAT AND CHOLESTEROL

niacin can help regulate high levels of cholesterol. "There is no drug that is as effective as niacin for treating elevated blood lipids...study after study has shown niacin to be superior to statins and other drugs"... (Lieberman & Bruning, 2007). < LDL, > HDL, < trigs

NERVOUS SYSTEM ACTIVITY

used since 1930 (Hoffer & Abram) to treat anxiety, depression, schizophrenia. "...a major cause of mental illness in today's society may be due not only to a deficiency in B vitamins, particularly niacin, but in omega-3 fatty acids as well"... (Lieberman & Bruning, 2007)

MENSTRUAL PROBLEMS

100 mg 2-8x/day decreased menstrual cramps in 90% of the subjects in one study. Vitamin C + flushing increases the effect.

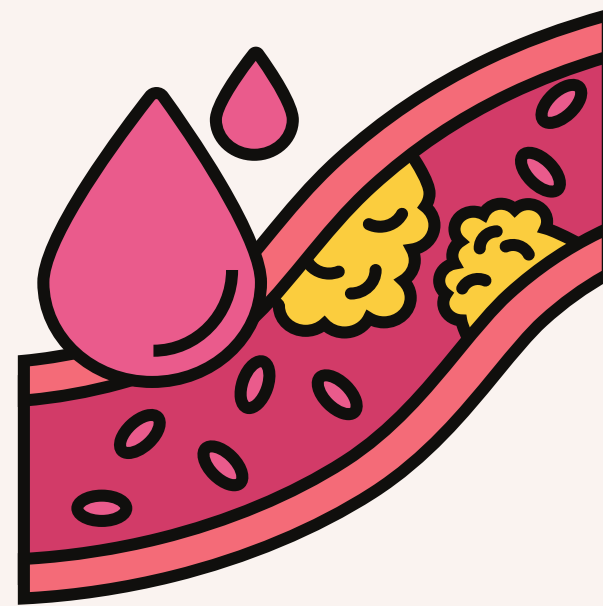


Niacin Deficiency

HOW IT SHOWS UP IN THE BODY



anxiety,
depression



elevated LDL, low
HDL, elevated
triglycerides



bright red tongue

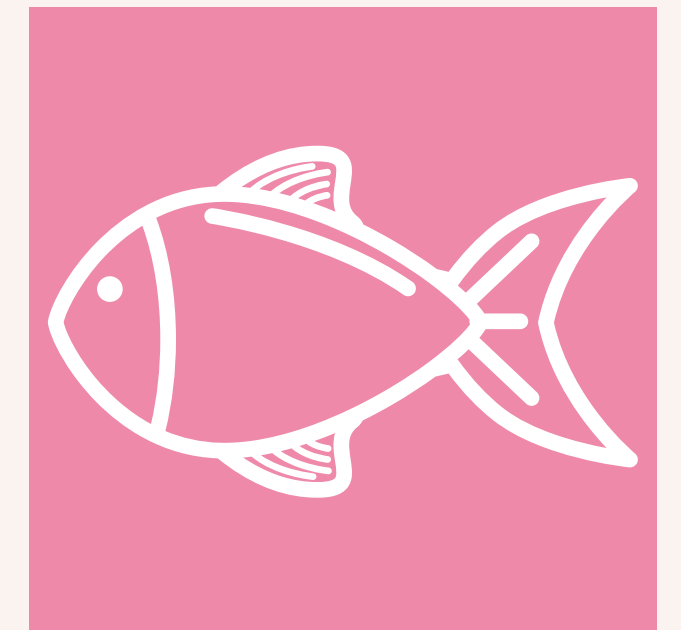
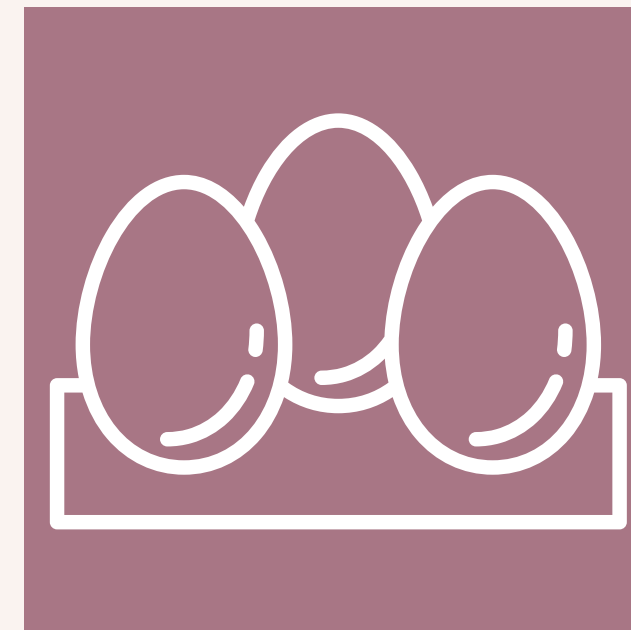
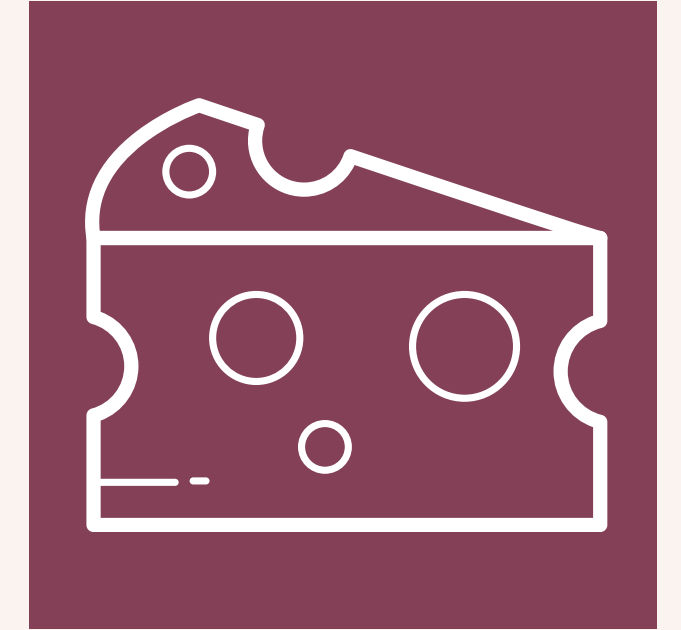
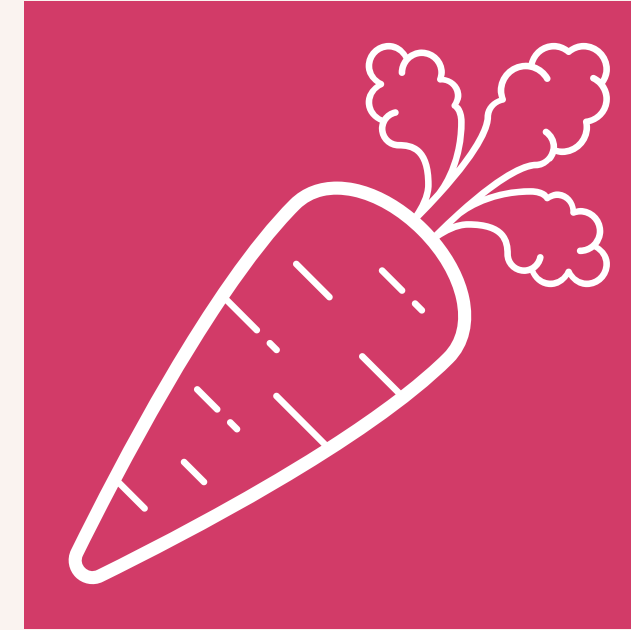
**most notable
symptoms:
anxiety +
depression**

NIACIN DEFICIENCY

Foods with Niacin

MEAT, DAIRY, PRODUCE

Beef, pork, fish, milk, cheese, whole wheat, potatoes, corn, eggs, broccoli, tomatoes, carrots.



WHEN SUPPLEMENTING

Niacin

RDA:

20 MG FOR WOMEN

20 MG FOR MEN

10 FOR CHILDREN

My Recommendation: 50–2000 mg/ day

Recap of Niacin

INTRODDUCTION TO THE FLUSH

- helps you naturally relax
- helps induce sleep more rapidly
- reduces cholesterol
- elevates HDL
- decreases ratio of total cholesterol over HDL
- "profoundly" lowers triglycerides
- reduces anxiety and depression
- dilates blood vessels and creates a sensation of warmth, or heat
 - the "niacin flush"
 - histamine release- traditional medicine says it can make allergies worse but I have seen the opposite- the histamine flush and depletion can be helpful

Your tolerable levels

to start:

- 25 mg 3x/day with meals
 - Day 2: 50 mg breakfast, 25 lunch, 25 dinner
 - Day 3: 50 mg breakfast, 50 mg lunch, dinner
-
- Niacin is a vitamin, not a drug. It is not habit forming. Niacin does not require a prescription because it is that safe. It is a nutrient that everyone needs each day.
 - Says Dr. Hoffer: "A person's "upper limit is that amount which causes nausea, and, if not reduced, vomiting. The dose should never be allowed to remain at this upper limit. T
 - The usual dose range is 3,000 to 9,000 milligrams daily divided into three doses, but occasionally some patients may need more. The toxic dose for dogs is about 5,000 milligrams per 2.2 pounds (1 kilogram) body weight. We do not know the toxic dose for humans since niacin has never killed anyone."

HOW TO DO A

Niacin Flush

START WITH 25 MG WITH EACH MEAL

WORK UP BY 25 MG PER DAY

THE MORE YOU USE, THE MORE YOU NEED

ALWAYS USE A METHYLATED B COMPLEX WITH LUNCH

IF YOU ARE DOING HIGHER DOSES

I TAKE 3500/ NIGHT

MANHY DRUGS DEplete B VITAMINS, INCLUDING
ASPIRIN, ANTIBIOTICS, PPIS, METFORMIN, ASTHMA AND
BLOOD PRESSURE MEDS, ESTROGENS, AND STEROIDS

vitamin cheat sheet *page 2*

JENNIFER WOODWARD NUTRITION

1 thiamin

anxiety depression	100-500mg
emotional stress	100-500mg
physical stress	100-500mg
high carb diet	50-100mg

2 riboflavin

anxiety depression	100-500mg
oral contraceptives	100-300mg
strenuous exercise	50-100mg
carpal tunnel	100-500mg (+B6)
migraines	400mg

3 niacin

anxiety depression	100-500mg
circulatory issues	50-500mg
mind or body stress	100-500mg
high cholesterol	250-1000mg

4 pyridoxine

anxiety depression	100-500mg
asthma	50-300mg
oral contraceptives	50-300mg
water retention	100-300mg
PMS	50-300mg

5 folate

anxiety + depression	400-800mcg
mind or body stress	400-800mcg
folic acid anemia	800-2000mcg
high homocysteine	1-5 mg

12 cobalamin

anxiety depression	100-500mcg
B12 anemia	250-500mcg
mind or body stress	100-500mcg
high homocysteine	500-1000mcg

These statements have not been evaluated by the Food and Drug Administration. This educational material is not intended to diagnose, treat, cure or prevent any disease. Talk with your doctor before adding any new supplements. *recommended supplement dosages based off of The Real Vitamin and Mineral Book (Lieberman & Bruning, 2007). Do not stop taking a medication without talking to your doctor first.