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**M.D. CORNER**

###  Illnesses caused by improper nutrient consumption

|  |  |  |
| --- | --- | --- |
| **Nutrients** | **Deficiency** | **Excess** |
| [**Macronutrients**](http://en.wikipedia.org/wiki/Macronutrient) |
| [Calories](http://en.wikipedia.org/wiki/Calorie) | [Starvation](http://en.wikipedia.org/wiki/Starvation), [marasmus](http://en.wikipedia.org/wiki/Marasmus) | [Obesity](http://en.wikipedia.org/wiki/Obesity), [diabetes mellitus](http://en.wikipedia.org/wiki/Diabetes_mellitus), [cardiovascular disease](http://en.wikipedia.org/wiki/Cardiovascular_disease) |
| [Simple carbohydrates](http://en.wikipedia.org/wiki/Simple_carbohydrate) | Low energy levels. | [Obesity](http://en.wikipedia.org/wiki/Obesity), [diabetes mellitus](http://en.wikipedia.org/wiki/Diabetes_mellitus), [cardiovascular disease](http://en.wikipedia.org/wiki/Cardiovascular_disease) |
| [Complex carbohydrates](http://en.wikipedia.org/wiki/Complex_carbohydrate) | Micronutrient deficiency | [Obesity](http://en.wikipedia.org/wiki/Obesity), [cardiovascular disease](http://en.wikipedia.org/wiki/Cardiovascular_disease) (high glycemic index foods) |
| [Protein](http://en.wikipedia.org/wiki/Protein_%28nutrient%29) | [Kwashiorkor](http://en.wikipedia.org/wiki/Kwashiorkor) | [Rabbit starvation](http://en.wikipedia.org/wiki/Rabbit_starvation), [ketoacidosis](http://en.wikipedia.org/wiki/Ketoacidosis) (in diabetics) |
| [Saturated fat](http://en.wikipedia.org/wiki/Saturated_fat) | Low testosterone levels, vitamin deficiencies. | [Obesity](http://en.wikipedia.org/wiki/Obesity), [cardiovascular disease](http://en.wikipedia.org/wiki/Cardiovascular_disease) |
| [Trans fat](http://en.wikipedia.org/wiki/Trans_fat) | None | [Obesity](http://en.wikipedia.org/wiki/Obesity), [cardiovascular disease](http://en.wikipedia.org/wiki/Cardiovascular_disease) |
| [Unsaturated fat](http://en.wikipedia.org/wiki/Unsaturated_fat) | [Fat-soluble](http://en.wikipedia.org/wiki/Fat-soluble) vitamin deficiency | [Obesity](http://en.wikipedia.org/wiki/Obesity), [cardiovascular disease](http://en.wikipedia.org/wiki/Cardiovascular_disease) |
| [**Micronutrients**](http://en.wikipedia.org/wiki/Micronutrient) |
| [Vitamin A](http://en.wikipedia.org/wiki/Vitamin_A) | [Xerophthalmia](http://en.wikipedia.org/wiki/Xerophthalmia) and [night blindness](http://en.wikipedia.org/wiki/Night_blindness) | [Hypervitaminosis A](http://en.wikipedia.org/wiki/Hypervitaminosis_A) (cirrhosis, hair loss) |
| [Vitamin B1](http://en.wikipedia.org/wiki/Thiamin) | [Beri-Beri](http://en.wikipedia.org/wiki/Beri-Beri) |  ? |
| [Vitamin B2](http://en.wikipedia.org/wiki/Riboflavin) | Skin and corneal [lesions](http://en.wikipedia.org/wiki/Lesion) |  ? |
| [Niacin](http://en.wikipedia.org/wiki/Niacin) | [Pellagra](http://en.wikipedia.org/wiki/Pellagra) | [Dyspepsia](http://en.wikipedia.org/wiki/Dyspepsia), [cardiac arrhythmias](http://en.wikipedia.org/wiki/Cardiac_arrhythmia), birth defects |
| [Vitamin B12](http://en.wikipedia.org/wiki/Vitamin_B12) | [Pernicious anemia](http://en.wikipedia.org/wiki/Pernicious_anemia) |  ? |
| [Vitamin C](http://en.wikipedia.org/wiki/Vitamin_C) | [Scurvy](http://en.wikipedia.org/wiki/Scurvy) | [Diarrhea](http://en.wikipedia.org/wiki/Diarrhea) causing [dehydration](http://en.wikipedia.org/wiki/Dehydration) |
| [Vitamin D](http://en.wikipedia.org/wiki/Vitamin_D) | [Rickets](http://en.wikipedia.org/wiki/Rickets) | [Hypervitaminosis D](http://en.wikipedia.org/wiki/Hypervitaminosis_D) (dehydration, vomiting, constipation) |
| [Vitamin E](http://en.wikipedia.org/wiki/Vitamin_E) | Neurological disease | [Hypervitaminosis E](http://en.wikipedia.org/wiki/Hypervitaminosis_E) (anticoagulant: excessive bleeding) |
| [Vitamin K](http://en.wikipedia.org/wiki/Vitamin_K) | [Hemorrhage](http://en.wikipedia.org/wiki/Hemorrhage) | Liver damage |
| [Omega-3 fats](http://en.wikipedia.org/wiki/Omega-3_fatty_acid) | [Cardiovascular Disease](http://en.wikipedia.org/wiki/Cardiovascular_Disease) | Bleeding, Hemorrhages, [Hemorrhagic stroke](http://en.wikipedia.org/wiki/Hemorrhagic_stroke), reduced glycemic control among diabetics |
| [Omega-6 fats](http://en.wikipedia.org/wiki/Omega-6_fatty_acid) | None | [Cardiovascular Disease](http://en.wikipedia.org/wiki/Cardiovascular_Disease), [Cancer](http://en.wikipedia.org/wiki/Cancer) |
| [Cholesterol](http://en.wikipedia.org/wiki/Cholesterol) | None | [Cardiovascular Disease](http://en.wikipedia.org/wiki/Cardiovascular_Disease) |
| [**Macrominerals**](http://en.wikipedia.org/wiki/Macromineral) |
| [Calcium](http://en.wikipedia.org/wiki/Calcium) | [Osteoporosis](http://en.wikipedia.org/wiki/Osteoporosis), [tetany](http://en.wikipedia.org/wiki/Tetany_%28medical_sign%29), [carpopedal spasm](http://en.wikipedia.org/wiki/Carpopedal_spasm), [laryngospasm](http://en.wikipedia.org/wiki/Laryngospasm), [cardiac arrhythmias](http://en.wikipedia.org/wiki/Cardiac_arrhythmia) | [Fatigue](http://en.wikipedia.org/wiki/Fatigue_%28physical%29), [depression](http://en.wikipedia.org/wiki/Clinical_depression), [confusion](http://en.wikipedia.org/wiki/Confusion), [nausea](http://en.wikipedia.org/wiki/Nausea), [vomiting](http://en.wikipedia.org/wiki/Vomiting), [constipation](http://en.wikipedia.org/wiki/Constipation), [pancreatitis](http://en.wikipedia.org/wiki/Pancreatitis), [increased urination](http://en.wikipedia.org/wiki/Polyuria), [kidney stones](http://en.wikipedia.org/wiki/Kidney_stones) |
| [Magnesium](http://en.wikipedia.org/wiki/Magnesium) | [Hypertension](http://en.wikipedia.org/wiki/Hypertension) | Weakness, nausea, vomiting, impaired breathing, and [hypotension](http://en.wikipedia.org/wiki/Hypotension) |
| [Potassium](http://en.wikipedia.org/wiki/Potassium) | [Hypokalemia](http://en.wikipedia.org/wiki/Hypokalemia), [cardiac arrhythmias](http://en.wikipedia.org/wiki/Cardiac_arrhythmia) | [Hyperkalemia](http://en.wikipedia.org/wiki/Hyperkalemia), [palpitations](http://en.wikipedia.org/wiki/Palpitation) |
| [Sodium](http://en.wikipedia.org/wiki/Sodium) | [Hyponatremia](http://en.wikipedia.org/wiki/Hyponatremia) | [Hypernatremia](http://en.wikipedia.org/wiki/Hypernatremia), [hypertension](http://en.wikipedia.org/wiki/Hypertension) |