Magnesium Deficiency Factors

(*The Magnesium Miracle*, Dr. Carolyn Dean, 2014)

Most people are deficient in magnesium. This list of symptoms is your baseline to assess the effectiveness of magnesium supplementation. If you check off more than 12, magnesium supplementation is definitely recommended.

1. Alcohol > 7 drinks per week
2. Anger
3. Angina
4. Anxiety
5. Apathy
6. Arrhythmia
7. Asthma
8. Blood tests
    a. Low calcium
    b. Low potassium
    c. Low magnesium
9. Bowel problems
    a. Undigested fat in stool
    b. Constipation
    c. Diarrhea
    d. Alternating constipation and diarrhea
    e. IBS
    f. Crohn's
    g. Colitis
10. Brain trauma
11. Bronchitis, chronic
12. Caffeine coffee, tea, choc), > 3/day
13. CFS (Chronic Fatigue)
14. Cold limbs
15. Concentration difficulties
16. Confusion
17. Convulsions
18. Depression
19. Diabetes
    a. Type I
    b. Type II
    c. Gestational
20. Fibromyalgia
21. Food intake imbalances
    a. Limited in green leafy vegetables, seeds, and fresh fruit
    b. High protein
22. Food cravings
    a. Carbohydrates
    b. Chocolate
    c. Salt
    d. Junk food
23. Gagging or choking on food
24. Hand tremor
25. Headaches
26. Heart disease
27. Heart rate – rapid
28. High BP
29. Homocysteinuria
30. Hyperactivity
31. Hyperventilation
32. Infertility
33. Insomnia
34. Irritability
35. Kidney stones
36. Medications
    a. Digitalis
    b. Diuretics
    c. Antibiotics
    d. Steroids
    e. Oral contraceptives
    f. Indomethacin
    g. Cisplatin
    h. Amphotericin

    i. Cholestyramine
    j. Synthetic estrogens
37. Memory impairment
38. Mercury amalgam dental fillings
39. Menstrual pain and cramps
40. Migraines
41. Mineral supplements
    a. Calcium without magnesium
    b. Zinc without magnesium
    c. Iron without magnesium
42. MVP – mitral valve prolapse
43. Muscle cramps or spasms
44. Muscle twitching or tics
45. Muscle weakness
46. Numbness of hands or feet
47. Osteoporosis
48. Paranoia
49. Parathyroid hyperactivity
50. PMS
51. Polycystic ovarian disease
52. Pregnancy
    a. Currently pregnant
    b. Pregnant again within one year
    c. Preclampsia or Eclampsia
    d. Postpartum depression
    e. Have a cerebral palsy child
53. Radiation therapy
54. Raynaud's syndrome
55. Restlessness
56. Sexual energy diminished
57. Short of breath
58. Smoking
59. Startled by noise
60. Stressful life
61. Stroke
62. Sugar, high intake daily
63. Syndrome X
64. Thyroid hyperactivity
65. Tingling of hands or feet
66. Transplants
    a. Kidney
    b. Liver
67. Water additives
    a. Fluoride
    b. Chlorine
    c. Calcium
68. Wheezing

Anxiety - Anxiety is a normal attribute of the biological brain designed to keep us alert in order to stay alive. If a predator comes toward us, then we have to be on our guard, but if our anxiety seemingly has no trigger and reaches an uncomfortable level, we have to find out why.

Magnesium manages fear. Stressful events lead to a gradual, but chronic, decrease in magnesium reserves. The resulting magnesium deficiency can set off a downward spiral of symptoms like low energy, weakness, uneasiness and irritability.

- Allopathic Medicine cannot say what causes Anxiety
- Anxiety does not just come out of the blue. There are 25 triggers for Anxiety that are caused by magnesium deficiency.
- By eliminating magnesium deficiency, you should be able to eliminate most forms of anxiety.
- The meaning behind anxiety symptoms can be explained by examining internal conflicts.

Magnesium and Insulin Resistance

One in three Americans—including half of those age 60 and older — have a silent blood sugar problem known as insulin resistance. Insulin resistance increases the risk for pre-diabetes, type 2 diabetes, and a host of other serious health problems, including heart attacks, strokes, Alzheimer's and cancer.

Insulin resistance is when cells in your muscles, body fat, and liver start resisting or ignoring the signal that the hormone insulin is trying to send out. Insulin's job is to open up receptor sites on cell membranes to allow the influx of glucose, the cell's source of fuel. Cells that no longer respond to the advances of insulin and refuse the entry of glucose are called insulin-resistant. As a result, blood glucose levels rise and the body produces more and more insulin, to no avail. Glucose and insulin rampage throughout the body, causing tissue damage that results in overuse and wasting of magnesium, an increased risk of heart disease, and type 2 diabetes.
How do you know if you're insulin resistant? Initially, insulin resistance presents no symptoms. The symptoms only start to appear once it leads to secondary effects such as higher blood sugar levels. When this happens, the symptoms may include:

- Lethargy (tiredness)
- Hunger
- Difficulty concentrating (brain fog)

Other signs that often appear in people with insulin resistance include:

- Weight gain around the middle (belly fat)
- High blood pressure
- High cholesterol levels

One of the major reasons the cells don't respond to insulin is lack of magnesium. Studies do show that chronic insulin resistance in patients with type 2 diabetes is associated with a reduction of magnesium because magnesium is necessary to allow glucose to enter cells. Studies also confirm that when insulin is released from the pancreas, magnesium in the cell normally responds and opens the cell to allow entry of glucose, but in the case of magnesium deficiency combined with insulin resistance, the normal mechanisms just don't work. However, the higher the levels of magnesium in the body, the greater the sensitivity of the cells to insulin and the higher the possibility of reversing the problem.

Those of you who are regular subscribers to Dr. Dean's blogs and podcast know that magnesium is required in the metabolic pathways, such as the Krebs cycle, to allow insulin to usher glucose into cells, where glucose participates in making ATP energy for the body. If magnesium is deficient, the doorway into the cells does not open to glucose, resulting in the following events:

1. Glucose levels become elevated.
2. Glucose is stored as fat and leads to obesity.

3. Elevated glucose leads to diabetes.
4. Obesity puts a strain on the heart.
5. Excess glucose becomes attached to certain proteins (the proteins become glycated), leading to kidney damage, neuropathy, blindness, and other diabetic complications.
6. Insulin-resistant cells don't allow magnesium into the cells.
7. Further magnesium deficiency leads to hypertension.
8. Magnesium deficiency leads to cholesterol buildup, and both these conditions are implicated in heart disease.

If you talk to most any doctor, they are going to tell you to get in some exercise and take Metformin. If you talk to Dr. Carolyn Dean she's going to tell you to take saturation doses of magnesium, and THEN get moving!