General pathophysiology

# Calcium and Phosphorus Metabolism

1. What is the most common reason for hypercalcemia:
    1. Excessive intestinal Ca++ absorption.
    2. Excessive oral calcium intake.
    3. Excessive production of parathormone (PTH).
    4. Excessive amounts of calcitonin.
    5. Calcium deficiency in the urine.

2. Vitamin $D_3$ deficiency leads to:
    1. Impaired intestinal calcium absorption.
    2. Hypoparathyroidism.
    3. Impaired calcitonin production.
    4. More effective bone remodelling.
    5. A block of the alkaline phosphatase of the osteoblasts.

3. Which condition corresponds to osteomalacia:
    1. Hypothyroidism.

2. Osteoporosis.

3. Hypoparathyroidism.

4. Rickets.

5. Hypervitaminosis D.

4. Impaired bone mineralisation leads to:

1. Osteoporosis.

2. Osteopetrosis.

3. Osteodystrophy.

4. Osteomalacia.

5. Osteolysis.

5. The most common reason for primary hyperparathyroidism is:

1. Adenoma of the parathyroid glands.

2. Hypophosphatemia.

3. Hypervitaminosis D

4. Cellular hyperplasia of the thyroid gland.

5. Parathyroid carcinoma.

6. What is the effect of alkalosis on the ionized calcium:

1. No effect.

2. Elevates it.

3. Decreases it.

4. Increases ionized calcium activity.

5. Different effects, depending on the ammount of ionized calcium.

7. All the following are consequences of hypocalcemia except one. Point it out:

1. Osteopenia.

2. Osteopetrosis.

3. Senile osteoporosis.

4. Osteomalacia.

5. Osteodystrophy.

8. Hypocalcemia could be present in all of the following conditions except one, which is it:

1. Hypovitaminosis $D_3$.

2. Hypoparathyroidism.

3. Malabsorption syndrome.

4. Rickets.

5. Adenoma of the parathyroid glands.

9. The main reason for postmenopausal osteoporosis is:

1. Estrogen deficiency with insufficient calcium intake.
2. Reduced physical activity.
3. Postmenopausal obesity.
4. Polypragmasia after menopause.
5. Disturbed libido.

10. Hypercalcemia DOES NOT lead to:

1. Calcinosis.
2. Adynamia.
3. Peptic ulcers in the digestive system.
4. Tetania.
5. Depression and reduced labour capacity.

11. Secondary hyperparathyroidism is present in:

1. Hypercalcemia.
2. Hypervitaminosis D.
3. Milk alkali syndrome.

4. Graves' disease.

5. Long-lasting hypocalcemia.

12. Hypercalcemia is a prerequisite for:

1. Urolithiasis.

2. Nephrocalcinosis.

3. Renal cyst formation.

4. Hyperparathyroidism.

5. 1, 2.

13. Which one is NOT affected by calcium dysbalance:

1. Hemostasis.

2. Neuro-muscular excitability.

3. Bone metabolism.

4. Cellular signal transmission.

5. Parathormone secretion.

6. Hypoxic stimulation of erythropoietin.