Blood Glucose

The physiologic regulation of blood glucose levels is largely dependent on hepatic:

1. Uptake of glucose.
2. Glycogenesis.

The peripheral tissues also contribute to the maintenance of normal blood level by using glucose for their energy requirement after ingestion and absorption of carbohydrates. 60% of absorbed glucose is transported to the liver.

The immediate effects on rise in blood glucose are:

1. Increase uptake of glucose by liver and brain cells.
2. Release of insulin.
3. Increase uptake of peripheral tissues.
4. Inhibition of release of glucagon.

When the fasting blood glucose level rises above 100 mg/dL that is caused hyperglycemia.

Hyperglycemia disease:

1. Diabetics.
2. Increase in the thyroid hormones.
3. Increase in anterior pituitary hormones.
4. Increase adrenal cortical hormones.

5. Anshing’s syndrome: excess produce from hydrocortizone.

6. Acromeglyce: excess produce from growth hormone (GH) from anterior pituitary hormones.

7. Excess insulin administration may occur in diabetics.

Hypoglycemia disease:
Take place when blood glucose levels under 40 mg/dL.

1. Decrease in the (myxedema) thyroidism.

2. Decrease in the thyroid hormones.

3. Decrease in anterior pituitary hormones.

4. Decrease adrenal cortical hormones.

5. Adesone’s disease caused by excess from Adrenocorticoid (ACTH)