Figure A: How vitamin D is synthesized.

1. **Calcitonin** inhibits the activation of vitamin D.
2. Calcitonin prevents calcium reabsorption in the kidneys.
3. Calcitonin limits calcium absorption in the intestines.
4. Calcitonin inhibits osteoclast cells from breaking down bone, preventing the release of calcium.

All these actions **lower blood calcium levels**, which inhibits calcitonin secretion.

Figure B: How vitamin D regulates blood Ca.

1. **Parathormone** stimulates the activation of vitamin D.
2. Vitamin D and parathormone stimulate calcium reabsorption in the kidneys.
3. Vitamin D enhances calcium absorption in the intestines.
4. Vitamin D and parathormone stimulate osteoclast cells to break down bone, releasing calcium into the blood.

All these actions **raise blood calcium levels**, which inhibits parathormone secretion.