

Biguanides are a group of antihyperglycemic drugs that work in the treatment of T2DM. the most common drug in this category, titled metformin, –All biguanides cause a decrease in insulin resistance and fasting insulin levels –They are used both as monotherapy and in combination with other oral hypoglycemic agents –Mechanism of action : Metformin achieves glycemic control via acting on the liver. It decreases the absorption of glucose in the intestines and increases insulin sensitivity without affecting the secretion of insulin. The mechanism of action involves the inhibition of mitochondrial complex I (of the respiratory chain), which leads to a decrease in mitochondrial ATP. –Precautions and Contraindications: people with advanced kidney disease should not take metformin Women who are pregnant are usually advised to stop taking metformin –Side Effects: nausea, upset stomach, diarrhea, .and may block vitamin B12 absorption in the body