This lecture on Diet Therapy 1 (NF381) covers endocrine system diseases, focusing on diabetes mellitus. The endocrine system, composed of scattered glands secreting hormones (chemical messengers), regulates bodily functions through hormone interactions. Endocrine diseases stem from hormone hyper/hypofunction or target cell issues. Hormones control growth, homeostasis, metabolism, and reproduction. Three hormone classes exist: peptides/proteins (majority, secreted by various glands), amines (thyroid and adrenal medulla), and steroids (adrenal cortex, gonads, placenta). The lecture details the pituitary, thyroid, adrenal glands, and pancreas, explaining their anatomy, hormone secretions, and roles in energy metabolism. Energy metabolism relies on carbohydrate, fat, and protein, with insulin and glucagon crucial for blood glucose control. Insulin, an anabolic hormone, facilitates glucose uptake and synthesis; glucagon counteracts hypoglycemia. Endocrine disorders arise from hormone imbalances or target organ hyporesponsiveness. Diabetes mellitus, a prevalent global health concern, is categorized into Type 1 (autoimmune beta-cell destruction), Type 2 (insulin resistance and deficiency), prediabetes, gestational diabetes, and other causes. Type 1 diabetes results in acute, potentially fatal consequences (hyperglycemia, ketoacidosis), while Type 2 presents insidiously. Diagnosis involves FPG, random plasma glucose, OGTT, and A1C tests. Treatment for Type 1 necessitates insulin administration; Type 2 involves lifestyle changes and medication (metformin initially). Nutrition therapy emphasizes individualized plans, considering carbohydrate counting, food lists, and meal planning to achieve glycemic control and prevent complications. Monitoring involves self-monitoring blood glucose (SMBG) and A1C tests.