

Effectiveness of Medical Nutrition Therapy

Medical Nutrition Therapy is an evidence-based application of the Nutrition Care Process that can include nutrition assessment/reassessment, nutrition diagnosis, nutrition intervention and nutrition monitoring and evaluation. MNT is provided by a Registered Dietitian Nutritionist with the goal of preventing, delaying or managing diseases or conditions.

The Medical Nutrition Therapy Act would provide coverage under Medicare Part B for MNT for a variety of chronic conditions beyond diabetes and renal disease, which are already covered. Below is a compilation of evidence that shows MNT to be clinically effective in treating or managing the new conditions included in the bill. Clinical guidelines that include MNT as a recommended component of care are listed as well.

Cancer

Evidence: MNT as part of a comprehensive treatment strategy can improve outcomes in adult oncology patients for many types of cancer including breast, ovarian, lung, leukemia, colorectal, gastrointestinal and head and neck.¹

Clinical Guidelines: [European Society for Clinical Nutrition and Metabolism](#); [American Cancer Society](#); [Academy of Nutrition and Dietetics Standards of Practice in Oncology Nutrition](#); [Academy of Nutrition and Dietetics Oncology Practice Guideline](#)

Cardiovascular Disease including Hypertension and Dyslipidemia

Evidence: In a 2022 systematic review with eight randomized clinical trials, usual care or no intervention compared to MNT provided by RDNs significantly improved total cholesterol (total-C), low-density lipoprotein cholesterol (LDL-C) [-11.56 mg/dL, triglycerides (TG), and systolic blood pressure (SBP) (*Mohr et al, J of Clin Lipidology, 2022*). Additionally, cost savings of \$638 to \$1450 per patient per year were reported due to decreases in medications and a reported increase in quality adjusted life years (QALY) by 0.75 years. (*Sikand et al, Current Atherosclerosis Reports, 2023*). Individual or group sessions utilizing MNT resulted in a reduction in blood pressure for those with hypertension and pre-hypertension with improvements reported as quickly as after one month of working with an RDN according to a systematic review of 70 research studies.² A systematic review of 34 studies determined that patients who participated in multiple MNT sessions were able to substantially lower their total cholesterol, low-density lipoprotein cholesterol and triglyceride levels.^{3,4,5,6,7,8} MNT interventions led to improved blood sugar levels, weight, blood pressure and quality-adjusted life years and reduced the need for lipid-lowering medications which resulted in cost-effectiveness and even cost savings in some cases.^{9,10,11,12,13,14,15}

In a 2023 systematic review with thirty-one randomized clinical trials in adults with prehypertension or hypertension, usual care or no intervention compared to MNT provided by RDNs significantly lowered blood pressure, lowered CVD events (stroke and myocardial infraction), CVD risk score, and anthropometric measures.

Clinical Guidelines:: [VA/DoD Clinical Practice Guideline](#); [American Heart Association](#); [Academy of Nutrition and Dietetics Hypertension Practice Guideline](#)

Celiac Disease

Evidence: MNT administered by a RDN can improve gluten-free diet adherence, self-reported general health and wellbeing, anemia, and gastrointestinal symptoms such as indigestion, diarrhea, constipation, abdominal pain, and reflux.^{16,17,18,19,20,21,22} Evidence indicates that RDN should collaborate with individual with celiac disease, their families and healthcare teams to design individualized MNT interventions focused on comprehensive nutrition assessment and individualized modification of diet to maintain or improve nutritional status, and monitor overtime.

Clinical Guidelines: [Canadian Association of Gastroenterology](#) [Academy of Nutrition and Dietetics Celiac Disease Practice Guideline](#)

Eating Disorders

Evidence: MNT provided by RDNs as part of an interdisciplinary care team helps patients with restoring body weight, achieving adequate nutrient intake to meet daily requirements through regular meal patterns and portions and reducing negative beliefs and fears surrounding food.^{23,24,25,26}

Clinical Guidelines: [American Psychiatric Association \(Draft Guideline\)](#); [American Psychiatric Association](#); [Academy of Nutrition and Dietetics Standards of Practice in Eating Disorders](#)

HIV/AIDS

Evidence: Early MNT intervention can improve oral intake, symptoms, cardiovascular risk, and prevent progressive weight loss. Nutrition counseling can support weight gain, CD4 white blood cell levels that help to measure the immune system and quality of life.^{27,28,29,30,31,32,33,34}

Clinical Guidelines: [HIV/AIDS: A Guide for Nutrition Care and Support](#)

Malnutrition

Evidence: Malnourished older adults have longer periods of illness, longer hospital stays and increased readmission rates.³⁵ MNT provided in the outpatient setting to patients with malnutrition increases overall nutrition status, cognitive function, functional status and overall food intake and significantly decreases primary care physician costs.^{36,37,38}

Malnutrition in the Community: A randomized clinical trial on 83 older adults living in the community and evaluated the effect of nutrition counseling and oral nutrition supplement by a dietitian compared to standard care; calorie intake significantly improved in the intervention group. (Payette 2002). In a study with 276 older adults with low protein intake (<1.0g/kg adjusted by weight), dietary advice by an RDN to increase protein intake to ≥ 1.2 g/kg ABW/d and similar advice plus advice to consume protein enriched foods within half an hour after usual physical activity resulted in significantly greater calorie intake. (Reinders 2022)

Clinical Guidelines: [American Society for Parenteral and Enteral Nutrition](#); [Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition](#)

Obesity

Evidence: A systematic review of 62 randomized clinical trials, found that when compared with control conditions, MNT interventions by a dietitian resulted in a reduction in body mass index, significantly greater weight loss and

increased likelihood of achieving 5% weight loss, reduced waist circumference, reduction in fasting blood sugar levels and systolic blood pressure, and likely increase in quality of life.³⁹ One to three contacts with a dietitian per month results in the largest improvement in parameters. Weight management interventions can be cost effective programs that have been shown to increase quality of life.^{40,41,42,43}

Clinical Guidelines: [Obesity Canada and the Canadian Association of Bariatric Physicians and Surgeons;](#) [Academy of Nutrition and Dietetics Standards of Practice in Adult Weight Management](#)

Prediabetes

Evidence: A recent systematic review with 13 randomized clinical trials demonstrates that MNT interventions delivered by dietitians compared with standard care results in improved hemoglobin A1c and fasting blood glucose. Additionally significant improvements were seen in weight, body mass index and waist circumference, total, high and low-density lipoproteins and blood pressure (systolic and diastolic). (*Dudzik et al, AJCN, 2023*) In other studies, MNT was shown to be an effective treatment for prediabetes that can result in a significant reduction in fasting blood sugar, blood sugar two hours after meals and waist circumference.^{44,45,46,47,48,49,50,51} MNT is a cost effective and potential cost-saving intervention for the prevention of diabetes in gained cost per quality-adjusted life years.^{52,53}

Clinical Guidelines: [American Diabetes Association;](#) [Joslin Diabetes Center;](#) [Academy of Nutrition and Dietetics Standards of Practice in Diabetes Care](#)

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