

CARDIAC DIETETICS, CARDIOVASCULAR NUTRITION AND REHABILITATION SPECIALIZATION COURSE

6 Month Advanced Specialization Course

A structured specialization for nutrition and dietetics students, graduates and practicing dietitians who want to develop advanced competence in cardiovascular medical nutrition therapy across prevention, hypertension, dyslipidemia, coronary artery disease, myocardial infarction, heart failure, cardiac surgery, rehabilitation, advanced heart disease and transplantation.

Who This Course Is For

Nutrition and dietetics students, graduates and practicing dietitians who want focused training in cardiovascular nutrition, prevention, established heart disease, cardiac rehabilitation, advanced heart failure and transplant related nutrition care.

Specialization Approach

The course begins with cardiovascular physiology, risk factors and specialized assessment before progressing into hypertension, dyslipidemia, atherosclerosis, coronary disease, myocardial infarction, heart failure, cardiac surgery, rehabilitation, advanced heart disease and transplantation.

Clinical Focus

Participants learn to connect cardiovascular diagnosis, disease stage, blood pressure, lipid profile, glucose and renal status, fluid balance, weight and muscle change, appetite, medications, procedures, functional capacity and rehabilitation goals when making nutrition decisions.

Overall Aim

To develop dietitians who can provide safe, individualized and evidence informed cardiovascular nutrition care, maintain

professional boundaries, collaborate with cardiology teams and defend clinical decisions rather than relying on generic heart healthy diets.

COURSE ROADMAP

Month

Primary Development Area

What the Participant Should Gain

Month 1

Cardiovascular Physiology, Risk Factors and Specialized Assessment

Understand cardiovascular physiology, major cardiac conditions, risk factors, laboratory information and comprehensive cardiovascular nutrition assessment.

Month 2

Hypertension, Dyslipidemia, Atherosclerosis and Cardiometabolic Risk

Develop evidence informed competence in blood pressure nutrition, lipid management, dietary patterns and cardiometabolic risk reduction.

Month 3

Coronary Artery Disease, Acute Coronary Syndrome, Myocardial Infarction and Secondary Prevention

Apply nutrition throughout established coronary disease, hospitalization, PCI, myocardial infarction recovery and cardiac rehabilitation.

Month 4

Heart Failure, Cardiomyopathy, Arrhythmias and Valvular Disease

Individualize sodium, fluid, energy and protein while addressing malnutrition, cardiorenal interaction and treatment related nutrition concerns.

Month 5

Cardiac Surgery, Rehabilitation, Advanced Heart Disease and Transplantation

Develop competence in perioperative nutrition, rehabilitation, advanced heart failure, mechanical circulatory support and transplant nutrition.

Month 6

Advanced Cardiac Dietetic Practice and Complex Case Management

Integrate nutrition diagnosis, intervention, monitoring, ADIME, medication awareness, multidisciplinary care and advanced cardiovascular case defense.

MONTH 1: CARDIOVASCULAR PHYSIOLOGY, RISK FACTORS AND SPECIALIZED NUTRITION ASSESSMENT

Theme: Understand cardiovascular physiology and risk before prescribing a cardiac diet.

Purpose: To build the physiological, clinical and assessment foundation required for safe cardiovascular dietetic practice.

Week

Focus

Learning Content

Practical Application

Week 1

Cardiovascular Anatomy and Physiology

Heart chambers, valves, myocardium, coronary circulation, systemic and pulmonary circulation, cardiac output, blood pressure regulation, endothelial function and fluid regulation.

Connect cardiovascular dysfunction with potential nutrition and functional consequences.

Week 2

Understanding Cardiovascular Disease

Atherosclerotic cardiovascular disease, coronary artery disease, acute coronary syndrome, myocardial infarction, hypertension, dyslipidemia, heart failure, cardiomyopathy, arrhythmias, valvular disease and cardiovascular kidney metabolic overlap.

Differentiate the dietetic implications of major cardiac diagnoses without crossing into medical diagnosis.

Week 3

Comprehensive Cardiovascular Nutrition Assessment

Medical and procedure history, dietary pattern, sodium, fat quality, fiber, added sugar, weight trajectory, body composition, edema, appetite, exercise tolerance, lipids, glucose, renal function, medications, lifestyle and social factors.

Complete a structured cardiovascular nutrition assessment from a simulated patient record.

Week 4

Cardiovascular Risk and Clinical Prioritization

Blood pressure, atherogenic lipids, diabetes, kidney disease, central adiposity, smoking, inactivity, diet quality, family history, existing cardiovascular disease and primary versus secondary prevention.

Prioritize nutrition goals according to risk profile rather than one

laboratory value.

Development Outcome: Participants should be able to connect cardiovascular diagnosis, risk profile, laboratory information, nutritional status, symptoms, treatment and lifestyle before choosing an intervention.

MONTH 2: HYPERTENSION, DYSLIPIDEMIA, ATHEROSCLEROSIS AND CARDIOMETABOLIC RISK

Theme: Cardiovascular prevention requires a sustainable dietary pattern, not one miracle nutrient.

Purpose: To develop evidence informed competence in hypertension, dyslipidemia, atherosclerotic risk and cardiometabolic nutrition.

Week

Focus

Learning Content

Practical Application

Week 5

Hypertension and DASH Based Nutrition

Sodium sources, DASH principles, potassium rich foods within renal and medication safety, body weight, physical activity, alcohol considerations and sustainable dietary change.

Develop individualized hypertension nutrition using the patient actual diet rather than a generic low salt sheet.

Week 6

Dyslipidemia and Atherogenic Lipoproteins

LDL related risk, triglycerides, remnant lipoproteins, lipoprotein(a), saturated and unsaturated fat, soluble fiber, whole grains, legumes, nuts, seeds and plant predominant dietary patterns.

Compare elevated LDL, hypertriglyceridemia and elevated lipoprotein(a) and identify where nutrition can and cannot substantially change risk.

Week 7

Atherosclerosis and Coronary Prevention

Atherosclerotic process, endothelial health, dietary fat quality, fiber, whole food patterns, smoking, physical activity and primary versus secondary prevention.

Build a cardiovascular prevention strategy from complete risk information.

Week 8

Dietary Patterns and Nutrition Misinformation

DASH, Mediterranean style eating, plant predominant patterns, very low fat diets, ketogenic patterns, ghee, butter, coconut oil, seed oil fear, supplements and alcohol claims.

Critically appraise common cardiac diet claims and translate evidence into practical counseling.

Development Outcome: Participants should move beyond low salt and low fat advice and learn to individualize dietary pattern, fat quality, fiber, sodium, metabolic health and long term adherence.

MONTH 3: CORONARY ARTERY DISEASE, ACUTE CORONARY SYNDROME, MYOCARDIAL INFARCTION AND SECONDARY PREVENTION

Theme: Once cardiovascular disease is established, nutrition

becomes part of secondary prevention, recovery and rehabilitation.

Purpose: To apply nutrition care across chronic coronary disease, acute coronary events, PCI, myocardial infarction and cardiac rehabilitation.

Week

Focus

Learning Content

Practical Application

Week 9

Coronary Artery Disease and Chronic Coronary Disease

Atherosclerotic coronary disease, angina context, dietary pattern, lipids, blood pressure, diabetes, medication awareness and secondary prevention.

Develop individualized MNT for medically established coronary artery disease.

Week 10

Acute Coronary Syndrome and Myocardial Infarction

Acute hospitalization, STEMI and NSTEMI concepts, appetite changes, glucose abnormalities, early nutrition assessment, discharge priorities and secondary prevention.

Design a realistic nutrition pathway from myocardial infarction admission to outpatient recovery.

Week 11

PCI, Stents and Postprocedure Nutrition

Basic PCI and stent concepts, antiplatelet medication awareness, lipid management, blood pressure, diabetes, smoking and long term dietary adherence.

Develop discharge and follow up nutrition priorities after PCI without implying diet replaces medical therapy.

Week 12

Cardiac Rehabilitation and Secondary Prevention

Dietary pattern, physical rehabilitation, weight and body composition, blood pressure, lipids, diabetes, smoking cessation support, psychological recovery and long term adherence.

Integrate nutrition into a multidisciplinary cardiac rehabilitation plan.

Development Outcome: Participants should understand how nutrition priorities change from hospitalization through recovery and long term secondary prevention.

MONTH 4: HEART FAILURE, CARDIOMYOPATHY, ARRHYTHMIAS AND VALVULAR DISEASE

Theme: Heart failure nutrition is not automatically a fixed sodium and fluid restriction.

Purpose: To develop individualized nutrition care for heart failure, cardiac malnutrition, cardiomyopathy, arrhythmias and valvular disease.

Week

Focus

Learning Content

Practical Application

Week 13

Heart Failure Physiology and Nutrition Assessment

HFrEF, HFmrEF and HFpEF concepts, congestion, edema, breathlessness, fatigue, early satiety, dry weight, renal interaction, malnutrition and functional decline.

Compare stable heart failure with decompensated heart failure and identify different nutrition priorities.

Week 14

Sodium, Fluid and Electrolytes in Heart Failure

Individualized sodium reduction, fluid restriction only when clinically indicated, thirst strategies, diuretic effects, potassium, renal function and dynamic volume status.

Build different nutrition plans for stable and congested heart failure rather than using one fixed prescription.

Week 15

Cardiac Malnutrition, Sarcopenia and Cachexia

Reduced appetite, early satiety, disease burden, unintended weight loss, muscle loss, functional decline, overly restrictive diets, energy and protein adequacy, oral nutrition support and rehabilitation.

Develop nutrition care for a heart failure patient losing weight under multiple dietary restrictions.

Week 16

Cardiomyopathy, Arrhythmias and Valvular Disease

Cardiomyopathy, atrial fibrillation, other rhythm disorders, valvular disease, electrolyte awareness, alcohol, body weight, anticoagulation and medication related nutrition considerations.

Identify appropriate dietetic priorities without claiming diet treats structural or electrical heart disease.

Development Outcome: Participants should be able to distinguish

congestion, nutritional depletion, renal interaction, medication effects and true indications for dietary restriction.

MONTH 5: CARDIAC SURGERY, REHABILITATION, ADVANCED HEART DISEASE AND TRANSPLANTATION

Theme: Major cardiac procedures require nutrition for recovery as well as long term cardiovascular risk reduction.

Purpose: To teach perioperative nutrition, cardiac rehabilitation, advanced heart failure nutrition, mechanical circulatory support and transplant nutrition.

Week

Focus

Learning Content

Practical Application

Week 17

CABG and Cardiac Surgery Nutrition

Preoperative nutrition screening, catabolic stress, postoperative intake, protein for healing, glucose management, appetite, functional recovery and secondary prevention.

Develop nutrition care from preoperative assessment through post CABG rehabilitation.

Week 18

Valve Surgery and Other Cardiac Procedures

Valve repair or replacement, postoperative fluid changes, appetite, anticoagulant therapy, nutrition progression, functional recovery and return to long term cardioprotective eating.

Create a postoperative transition plan that avoids unnecessarily

prolonged hospital stay restriction.

Week 19

Advanced Heart Failure and Mechanical Circulatory Support

Severe heart failure, LVAD concepts, malnutrition, frailty, energy and protein, fluid and sodium within specialist care, anticoagulation and rehabilitation.

Prioritize nutrition for a patient being assessed for mechanical circulatory support.

Week 20

Heart Transplant Nutrition

Pretransplant nutrition, frailty, obesity context, early postoperative nutrition, food safety, immunosuppressive medication implications, diabetes, dyslipidemia, weight gain, bone health and long term cardiovascular care.

Follow a simulated patient from advanced heart failure through transplantation and long term nutrition follow up.

Development Outcome: Participants should be able to support recovery, preserve muscle, prevent malnutrition and transition patients from acute cardiac care toward long term rehabilitation.

MONTH 6: ADVANCED CARDIAC DIETETIC PRACTICE AND COMPLEX CASE MANAGEMENT

Theme: Treat the nutrition diagnosis within cardiovascular disease, not simply the cardiac diagnosis.

Purpose: To integrate nutrition diagnosis, intervention, medication awareness, monitoring, ADIME documentation, referral and advanced multidisciplinary cardiovascular care.

Week

Focus

Learning Content

Practical Application

Week 21

Cardiovascular Nutrition Diagnosis and PES

Nutrition diagnoses related to sodium, saturated fat, fiber, energy, protein, malnutrition, unintended weight change, laboratory findings, knowledge and behavioral barriers.

Write and defend PES statements for hypertension, dyslipidemia, coronary disease and heart failure cases.

Week 22

Cardiac Nutrition Intervention and Medication Awareness

Cardioprotective dietary patterns, sodium, fat quality, fiber, energy, protein, supplements, statins, antihypertensives, diuretics, anticoagulants and medication related food considerations.

Build an intervention that supports pharmacological treatment rather than competing with it.

Week 23

Monitoring, ADIME and Multidisciplinary Practice

Monitoring dietary intake, weight, edema, blood pressure, lipids, glucose, renal function, symptoms and function. ADIME documentation, referral and collaboration with cardiology, rehabilitation, renal, endocrine, pharmacy and transplant teams.

Prepare a cardiac ADIME note and concise multidisciplinary referral communication.

Week 24

Advanced Cardiovascular Case Defense

Integration of cardiac diagnosis, disease stage, blood pressure, lipid profile, glucose, renal and fluid status, weight, body composition, medications, procedures, nutrition diagnosis, intervention and monitoring.

Defend one prevention case, one coronary or rehabilitation case and one advanced heart failure case with a clear rationale for every major intervention.

Development Outcome: Participants should finish the specialization able to justify cardiovascular nutrition decisions according to diagnosis, risk, nutritional status, treatment, medications, functional goals and patient priorities.

CARDIAC SPECIALIZATION CASE PORTFOLIO

Case Area

Practical Competency

Hypertension

Apply individualized DASH principles, sodium reduction and lifestyle support within medical care.

Elevated LDL

Use dietary fat quality, soluble fiber and complete dietary pattern to support lipid management.

Hypertriglyceridemia

Address refined carbohydrate, alcohol, energy balance and metabolic contributors.

Elevated Lipoprotein(a)

Understand the limits of nutrition and focus on broader cardiovascular risk reduction.

Cardiovascular Kidney Metabolic Risk

Integrate overlapping cardiac, renal, glucose and weight priorities without conflicting restrictions.

Coronary Artery Disease

Provide secondary prevention MNT within established cardiac treatment.

Post PCI

Develop sustainable nutrition care after coronary intervention and stent placement.

Myocardial Infarction

Transition nutrition from acute hospitalization toward rehabilitation and secondary prevention.

Cardiac Rehabilitation

Coordinate dietary change with physical and functional recovery.

Heart Failure

Individualize sodium, fluid, energy and protein according to clinical and nutritional status.

Heart Failure With Malnutrition

Protect intake and muscle while avoiding excessive cumulative restriction.

Cardiac Cachexia

Recognize complex nutritional deterioration and establish realistic multidisciplinary goals.

Cardiomyopathy

Support nutrition, weight and functional status within specialist cardiac treatment.

Atrial Fibrillation

Integrate cardiometabolic health, alcohol, weight and medication considerations.

Valvular Disease

Manage nutrition according to symptoms, treatment and heart failure status.

CABG

Provide preoperative and postoperative nutrition with long term secondary prevention.

Advanced Heart Failure and LVAD

Address malnutrition, frailty, fluid, anticoagulation and rehabilitation within advanced care.

Heart Transplant

Manage nutrition from transplant assessment through recovery and long term follow up.

Complex Cardiorenal Case

Prioritize heart failure, renal, electrolyte and nutrition goals using multidisciplinary reasoning.

Final Case Defense

Defend the complete cardiovascular nutrition care process using clinical reasoning and professional scope.

Resistant Hypertension Context

Recognize nutrition related contributors and adherence barriers while resistant hypertension evaluation and medication management remain medical.

PROFESSIONAL SCOPE INTEGRATION

Situation

Cardiac Dietitian Role

Hypertension

Provide individualized nutrition and lifestyle intervention while diagnosis and medication management remain clinician led.

Dyslipidemia

Provide medical nutrition therapy while pharmacological lipid management remains within prescribing scope.

Elevated Lipoprotein(a)

Recognize cardiovascular relevance without promising dietary normalization.

Coronary Disease

Provide secondary prevention nutrition alongside cardiology treatment and medication.

Acute Myocardial Infarction

Support nutrition during hospitalization and recovery while acute cardiac management remains medical.

PCI or Stent

Support long term risk reduction while antiplatelet and other treatment remain physician managed.

Heart Failure

Individualize nutrition according to nutritional and volume status within the heart failure treatment plan.

Edema

Assess nutrition related factors without independently diagnosing

the cause of fluid accumulation.

Arrhythmia

Address nutrition and metabolic contributors without treating rhythm disorders through diet.

Anticoagulation

Provide appropriate food and medication education without changing prescribed therapy.

Cardiac Surgery

Support preoperative optimization and postoperative recovery within surgical protocols.

Cardiac Rehabilitation

Integrate nutrition into multidisciplinary secondary prevention and functional recovery.

LVAD and Advanced Heart Failure

Provide specialized nutrition within advanced heart failure teams.

Heart Transplant

Manage nutrition within multidisciplinary transplant care.

Complex Cardiovascular Disease

Collaborate with cardiology, renal, endocrine, pharmacy, rehabilitation and transplant teams.

FINAL SPECIALIZATION PORTFOLIO

Portfolio Component

Final Output

Cardiovascular Nutrition Assessment

Complete specialized cardiac nutrition assessment framework.

Cardiovascular Risk Exercise

Nutrition focused evaluation of modifiable cardiovascular risk factors.

Hypertension Case

DASH based and sodium focused individualized intervention.

Dyslipidemia Portfolio

LDL, triglyceride and complex lipid cases.

Cardioprotective Diet Evaluation

Evidence informed appraisal of dietary patterns and common heart health claims.

Coronary Artery Disease Case

Complete secondary prevention nutrition care process.

Myocardial Infarction Case

Acute care to rehabilitation nutrition pathway.

Cardiac Rehabilitation Plan

Nutrition and lifestyle recovery framework.

Heart Failure Case

Sodium, fluid, nutritional status and symptom assessment.

Cardiac Malnutrition Case

Nutritional restoration and muscle preservation framework.

Arrhythmia and Anticoagulation Case

Nutrition and medication awareness within professional scope.

Cardiac Surgery Case

Preoperative and postoperative nutrition pathway.

Advanced Heart Failure and LVAD Case

Nutrition, fluid, frailty and rehabilitation considerations.

Heart Transplant Case

Pretransplant and post transplant nutrition care.

Cardiac ADIME Portfolio

Complete professional cardiovascular nutrition documentation.

Referral Framework

Cardiology, surgery, rehabilitation, renal, endocrine, pharmacy and transplant pathways.

Final Case Defense

Advanced cardiovascular nutrition presentation supported by clinical reasoning.

EXPECTED SPECIALIZATION TRANSFORMATION

At Entry

At Completion

Cardiac diet means low salt and low oil.

I individualize cardiovascular nutrition according to diagnosis, risk profile, nutritional status and treatment.

All fat is bad for heart patients.

I understand dietary fat quality and the importance of the overall dietary pattern.

High cholesterol means stop eggs and meat.

I assess saturated fat, fiber, dietary pattern, metabolic factors and overall cardiovascular risk rather than blaming one food.

Elevated lipoprotein(a) can be corrected with diet.

I recognize the limits of nutrition for genetically influenced risk markers and support broader risk reduction.

Hypertension means remove salt completely.

I apply practical sodium reduction within a nutritionally adequate dietary pattern.

After myocardial infarction, the patient needs boiled food.

I provide structured secondary prevention and cardiac rehabilitation nutrition.

Heart failure means the same fluid and sodium limits for everyone.

I individualize fluid and sodium according to clinical status and the cardiology plan.

Weight loss is good for every cardiac patient.

I recognize malnutrition, sarcopenia and cardiac cachexia and know when nutritional restoration is the priority.

After bypass, only a heart healthy meal plan matters.

I integrate perioperative recovery, protein adequacy, rehabilitation and long term secondary prevention.

I know cardiac diets.

I can conduct, document and defend a complete cardiovascular

medical nutrition therapy process.

FINAL LEARNING PATHWAY

Stage

Learning Progression

Stage 1

Understand cardiovascular physiology and major disease patterns.

Stage 2

Conduct a comprehensive cardiovascular nutrition assessment.

Stage 3

Assess blood pressure, lipids, glucose, renal status and overall cardiovascular risk.

Stage 4

Manage hypertension using individualized dietary pattern and sodium strategies.

Stage 5

Manage dyslipidemia and understand atherosclerotic risk.

Stage 6

Provide nutrition for coronary artery disease and secondary prevention.

Stage 7

Support acute coronary syndrome, myocardial infarction and PCI recovery.

Stage 8

Integrate nutrition into cardiac rehabilitation.

Stage 9

Manage heart failure nutrition, fluid status and cardiorenal interaction.

Stage 10

Recognize cardiac malnutrition, sarcopenia and cachexia.

Stage 11

Support cardiomyopathy, arrhythmias and valvular disease within specialist care.

Stage 12

Provide nutrition before and after cardiac surgery.

Stage 13

Support advanced heart failure, LVAD and heart transplant nutrition.

Stage 14

Develop nutrition diagnosis, intervention, monitoring and ADIME documentation.

Stage 15

Collaborate with cardiovascular teams and defend advanced cardiac cases.

COURSE PHILOSOPHY

This specialization is designed to develop cardiovascular dietetic reasoning rather than provide a collection of cardiac meal plans. Participants learn to connect cardiovascular physiology, disease stage, blood pressure, lipid profile, glucose and renal status, fluid balance, nutritional status, medications, procedures, rehabilitation and patient goals so that intervention remains individualized, clinically appropriate and professionally defensible.