Unit 3: Naturopathic Nutritional Therapeutics

Year 2: Semester 2

Day | Topic
---|---
1 | Endocrine system health
2 | Women’s Health
3 | Pregnancy and Paediatrics
4 | Fertility, Urinary System, Men’s Health
5 | Skin and Respiratory Health
6 | Cancer Support
7 | Musculoskeletal System Health
8 | Sports Nutrition
9 | Ageing, Multiple Sclerosis, Parkinson’s Disease
10 | Setting up Practice

Core Learning Outcomes

Your Core Learning Outcomes form the basis of your study programme. For more detailed descriptions of what you will be learning please read the relevant sections of your Lecture Guide below.

Unit 4

1. Pathophysiology Synthesize understanding of pathology, differential diagnosis and orthodox treatments
2. Nutritional Physiology Evaluate and rationalize the integration of nutritional intervention with conventional medical treatment
3. Nutritional Physiology Evaluate the use of nutritional intervention as a therapy, palliative or supportive measure in the support of given conditions
4. Nutritional Physiology Appraise the importance of safety in designing protocols
5. Nutritional Physiology Design nutrition protocols to support a range of age and gender related pathologies and to support various specific groups such as pregnant women and athletes
6. Practice Management To demonstrate a full understanding of the ethical, administrative, legal and business environment of being a health care practitioner
Year 2

**Essential Reading**


**Recommended Reading**


Unit 4: Naturopathic Nutritional Therapeutics

Day 1: Endocrine System Health

Aims:

- To provide a detailed overview and review of the physiology of the endocrine system
- To explore the pathophysiology of commonly occurring endocrine system disorders
- To outline both orthodox medicine and naturopathic nutritional approaches to the support of commonly occurring endocrine pathologies

Learning Outcomes:

On successful completion you will be able to:

1. Explain the major pathophysiologies of the endocrine system
2. Describe in detail the functions of different aspects of the endocrine system
3. Evaluate orthodox medical testing and treatment for endocrine system disorders
4. Outline nutritional therapy approaches to supporting major endocrine glands including the thyroid, pancreas and adrenal glands
5. Show awareness of the importance of referral with ‘Red Flag’ symptoms

Assessment Criteria

To achieve the learning outcome you must demonstrate the ability to:

- Describe the structure and function of the major endocrine glands
- Identify the signs and symptoms of endocrine imbalances
- Identify and explain orthodox medical tests for and treatment of endocrine dysfunction
- Describe the use of nutritional therapy including lifestyle and dietary changes and nutraceuticals in the support of the endocrine system

Material to be covered

Pathophysiology, diagnostic criteria, orthodox and naturopathic nutritional approach to:

- Hypothyroidism and Hyperthyroidism
- Diabetes Mellitus Type 1 and 2
- Cushing’s syndrome
- Adrenal insufficiency

Student Required Reading

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<td>Encyclopaedia of Natural Medicine</td>
<td>Chapters: Diabetes Mellitus &amp; Hypoglycaemia &amp; Hypothyroidism</td>
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Unit 4: Naturopathic Nutritional Therapeutics

Day 2: Women’s Health

Aims:

- To provide an overview of the structure and function of the female reproductive system (building on knowledge gained in Biomedicine unit)
- To explore female hormonal balance and factors which may inhibit a healthy balance of reproductive hormones
- To explore a range of common pathologies of the female reproductive system

Learning Outcomes:

On successful completion you will be able to:

1. Explain the structure and function of the female reproductive system
2. Identify symptoms of imbalance in the female reproductive system
3. Identify the causes of imbalance in the female reproductive system
4. Evaluate orthodox medical treatments and nutritional therapy support of the female reproduction system
5. Show awareness of the importance of referral with ‘Red Flag’ symptoms

Assessment Criteria

To achieve the learning outcomes you must demonstrate the ability to:

- Outline key functions of female reproductive hormones
- Describe in detail key processes within female reproductive health such as the menstrual cycle
- Explain the importance of healthy oestrogen metabolism
- Outline factors which contribute to hormonal disruption
- Outline the aetiology of common reproductive pathologies
- Outline the orthodox medical approaches to reproductive pathologies
- Describe the nutritional therapy approaches to supporting reproductive system health

Material to be covered

- Review of the female reproductive physiology
- Oestrogen metabolism and nutrients that promote healthy oestrogen metabolism
- Hormone disrupters
- Pathophysiology, diagnostic criteria, orthodox and naturopathic nutritional approaches to supporting clients with:
- Polycystic ovarian syndrome PCOS
- Ovarian cysts
- Menopause
- Endometriosis
- Pre-menstrual syndrome

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Unit 4: Naturopathic Nutritional Therapeutics

Day 3: Urinary System, Men’s Health and Fertility

Aims:

- To provide an overview of the physiology of the urinary system and the male reproductive system
- To explore a range of common pathologies affecting the urinary systems and male reproductive system
- To explore the use of nutritional therapy to support healthy urinary systems and male reproductive systems
- To investigate causative factors of infertility
- To explore how nutritional therapy can support people during preconception care and support normal fertility and fertility management

Learning Outcomes:

On successful completion you will be able to:

1. Explain the structure and function of the urinary and male reproductive systems
2. Identify a range of common pathologies affecting the urinary and male reproductive systems
3. Evaluate orthodox medical approaches to a range of male reproductive and urinary pathologies
4. Outline nutritional therapy approaches to support a healthy urinary system and the male reproductive system
5. Discuss factors affecting fertility
6. Discuss preconception care and natural fertility management
7. Show awareness of the importance of referral with ‘Red Flag’ symptoms

Assessment Criteria

To achieve the learning outcome you must demonstrate the ability to:

- Describe the structure and function of the male reproductive and urinary systems
- Describe the symptoms and aetiology of range of common pathologies affecting the male reproductive and urinary systems
- Describe orthodox medical approaches to common pathologies affecting the male reproductive and urinary systems
- Describe nutritional therapy approaches to support the male reproductive and urinary systems
- Discuss fertility support and fertility management
Material to be covered

Pathophysiology, diagnostic criteria, orthodox treatment and nutritional support of people with:

- prostatitis
- benign prostatic hyperplasia
- andropause
- libido problems
- cystitis
- interstitial cystitis
- kidney stones
- infertility, fertility management and preconception care related concerns

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Unit 4: Naturopathic Nutritional Therapeutics

Day 4: Pregnancy and Paediatrics

Aims:

- To explore the process of foetal development and changes to the female body during pregnancy
- To provide a detailed overview of pathologies which may affect women during pregnancy, babies and children
- To explore the needs of the mother during labour, childbirth and lactation
- To provide an overview of early stages of infant development in the context of weaning and food introduction
- To explore how nutritional therapy can support people during life stages of pregnancy and early childhood

Learning Outcomes:

On successful completion you will be able to:

1. Explain the main physiological processes of pregnancy and lactation
2. Identify common pathologies affecting pregnant women and infants
3. Outline how nutritional therapy can help to support healthy pregnancy
4. Explain different options surrounding childbirth
5. Explain the nutritional needs of infants and appropriate weaning and food introduction protocols
6. Outline how nutritional therapy can support healthy infancy
7. Show awareness of the importance of referral with ‘Red Flag’ symptoms

Assessment Criteria

To achieve the learning outcome you must demonstrate the ability to:

- Describe the physiological changes to the female body during pregnancy and lactation
- Describe the key stages of foetal development
- Outline the specific nutritional needs of pregnant and lactating women
- Describe common pathologies which can affect pregnant women
- Outline nutritional therapy support for healthy pregnancy
- Describe a range of common pathologies which affect babies and children
- Describe how nutritional therapy may be used to support healthy infancy
Material to be covered

Pathophysiology, diagnostic criteria, orthodox and naturopathic nutritional approach to:

- Maternal and foetal development in pregnancy
- The effect of maternal stress and effect on foetal development
- Labour and childbirth - options, support, eating during labour
- Breast feeding
- Gestational diabetes
- Mastitis
- Placenta previa
- Pre-eclampsia
- Morning sickness
- PICA
- Weight loss in pregnancy

Children

- Normal developmental stages - weaning and food introduction
- Vaccinations
- Allergies/ intolerances
- Skin disorders
- Otitis media/ externa
- Sleeping problem - bed wetting
- ADD/ADHD/autism spectrum/dyspraxia

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<td>Encyclopaedia of Natural Medicine</td>
<td>Chapters: Attention Deficit Disorders, Ear Infection, Nausea and Vomiting of Pregnancy</td>
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Unit 4: Naturopathic Nutritional Therapeutics

Day 5: Skin and Respiratory Health

Aims:
- To provide a detailed overview of the pathophysiology of a range of common skin and respiratory disorders such as asthma and eczema
- To explore the different theories of aetiology behind this range pathologies and how they relate to other body systems such as the gastrointestinal tract
- To investigate both orthodox medical treatment of and nutritional therapy approaches to supporting people with a range of common skin and respiratory disorders

Learning Outcomes:
On successful completion you will be able to:
1. Explain the pathophysiology of a range of common skin and respiratory disorders such as Asthma and Eczema
2. Explain the varied aetiologies which drive various skin and respiratory diseases
3. Illustrate how skin and respiratory disorders connect to pathologies of other body systems
4. Explain orthodox medical treatment and diagnosis of skin and respiratory disorders
5. Evaluate and naturopathic nutritional support for healthy skin and respiratory systems
6. Show awareness of the importance of referral with ‘Red Flag’ symptoms

Assessment Criteria:
To achieve the learning outcome you must demonstrate the ability to:
- Describe in detail the pathophysiology of a range of common skin and respiratory disorders
- Identify signs and symptoms of a range of common skin and respiratory disorders
- Describe the various theories surrounding the aetiology of common skin and respiratory disorders
- Outline the nutritional therapy approaches to healthy skin and respiratory system support

Material to be covered
- Asthma
- Dermatitis (Eczema)
- Acne
- Psoriasis
- Sinusitis, bronchitis, acne rosacea, hay fever, fungal skin/nails, boils, warts
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<td>Encyclopaedia of Natural Medicine.</td>
<td>Chapters: Acne, Asthma and Hay fever, Boils, Bronchitis and Pneumonia, Eczema</td>
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Unit 4: Naturopathic Nutritional Therapeutics

Day 6: Cancer Support

Aims:
- To provide an overview of the pathophysiology of cancer and its progression
- To explore the dietary connections between cancer and certain food groups
- To investigate how nutritional therapy can support cancer prevention.
- To investigate the process of conventional cancer treatment and how to support a client through the process.

Learning Outcomes:
On successful completion you will be able to:
1. Explain the pathophysiology of cancer and how it progresses in the human body
2. Explain the dietary factors which may increase the risk of developing cancer
3. Evaluate how dietary changes can reduce the risk of developing/promoting cancer
4. Explain various mechanisms implicated in the pathophysiology of cancer
5. Explain the various options in orthodox cancer treatment
6. Discuss complementary and nutritional therapies as support to orthodox cancer treatments and cancer patients
7. Show awareness of the importance of referral with ‘Red Flag’ symptoms

Assessment Criteria
To achieve the learning outcome you must demonstrate the ability to:
- Describe how cancer cells occur in the human body
- Describe how cancer cells are fuelled and multiply with the human body
- Identify dietary factors which may increase the risk of cancer
- Identify dietary factors which may decrease the risk of cancer
- Describe the inflammatory pathways which may contribute the risk of cancer
- Describe how dietary factors may influence the pathophysiology of cancer

Material to be covered
- Pathophysiology of cancer
- Genetics and other causal factors
- Importance of nutrition and complementary therapies in cancer prevention and cancer treatment support
- Dietary carcinogens and dietary factors linked to increased cancer rates
- Mechanisms of tumour promotion
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Unit 4: Naturopathic Nutritional Therapeutics

Day 7: Musculoskeletal Health

Aims:

- To provide a review of key aspects of the structure and function of the musculo-skeletal system
- To explore a range of common pathologies affecting the musculo-skeletal system and how they relate to other body systems
- To examine orthodox medical approaches to pathologies affecting the musculo-skeletal system
- To examine nutritional therapy approach to supporting healthy musculo-skeletal system

Learning Outcomes:

On successful completion you will be able to:

1. Explain the aetiology of a range of common pathologies affecting the musculo-skeletal system
2. Explain the significance and affects of musculo-skeletal disorders within the body as whole
3. Outline the varied aetiologies of disorders within the musculo-skeletal system ie relationship with gastrointestinal health.
4. Identify signs and symptoms of musculo-skeletal disorders
5. Evaluate the orthodox medical approach to diagnostic assessment and treatment of musculo-skeletal disorders
6. Evaluate nutritional therapy approaches to support of a healthy musculo-skeletal system
7. Show awareness of the importance of referral with ‘Red Flag’ symptoms

Assessment Criteria

To achieve the learning outcome you must demonstrate the ability to:

- Describe the structure and function of joints, muscles and bones
- Describe the various aetiologies of pain and inflammation with the musculo-skeletal system
- Describe the presentation of various commonly occurring musculo-skeletal disorders
- Explain the connection between musculo-skeletal disorders and other body systems
- Outline orthodox medical testing and treatment of musculo-skeletal disorders
- Outline key nutrients for bone health and joint health
- Outline other key nutritional therapy approaches to support of musculo-skeletal system and related pathways
Material to be covered –
Pathophysiology, diagnostic criteria, orthodox and naturopathic nutritional approach to:

- Arthritis
  - rheumatoid
  - osteoarthritis
- Gout
- Osteoporosis
- Muscle cramps

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Unit 4: Naturopathic Nutritional Therapeutics

Day 8: Sports Nutrition

Aims:
- To provide an overview of how the body responds to physical exercise
- To explore different types of exercise and their affects on the human body both beneficial and detrimental
- To provide information in key nutrients required for exercise and training
- To explore the problems of overtraining syndrome

Learning Outcomes:
On successful completion you will be able to:
1. Revise energy metabolism in relation to exercise including aerobic and anaerobic exercise
2. Understand the importance of carbohydrate in sport, how it affects performance outcomes and optimal intake before, during and post exercise
3. Discuss the advantages and disadvantages of carbohydrate loading on exercise outcome
4. Understand the importance of protein in sport and competition performance, its uses and optimal intake
5. Understand the importance of lipids in sport and competition performance, its uses and optimal intake
6. Discuss the burning of lipids for exercise and how intensity, duration and fitness can be manipulated to use lipids as fuel.
7. Discuss the importance of hydration in sport, electrolytes and various types of sports drinks and the effects of alcohol on performance
8. Outline why immunity is poor in athletes and revise how immunity can be enhanced
9. Discuss the effect of specific nutrients in sports and how they can aid performance or recovery from a functional medicine perspective
10. Outline the difference between whey and casein based protein powders, their benefits and disadvantages.
11. Discuss the importance of flexibility and sports psychology in enhancing performance

Assessment Criteria
To achieve the learning outcome you must demonstrate the ability to:
- Describe how exercise impacts key tissues and organs within the body
- Describe the different forms of exercise in detail
- Describe factors affecting body composition
- Outline the health benefits of exercise
- Outline the functional medicine approach to exercise
- Name the key nutrients which promote healthy muscle tissue formation and support the body during exercise and recovery

**Material to be covered**

- Explanation of balance of anabolism and catabolism
- Factors affecting body composition
- Health benefits of exercise
- Different types of exercise
- Functional medicine ‘exercise prescription’
- Key nutrients to promote anabolic growth and minimise catabolic factors
- ‘Overtraining syndrome’

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<td>Chapter: Sports Injuries, Tendinitis and Bursitis</td>
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Unit 4: Naturopathic Nutritional Therapeutics

Day 9: Ageing, Multiple Sclerosis and Parkinson’s disease.

Aims:
- To provide an overview of the main theories of ageing
- To explore the impact that ageing may have on nutritional status of the aged
- To explore the pathophysiology of a range of degenerative diseases.

Learning Outcomes:
On successful completion you will be able to:
1. Explain the main theories of ageing
2. Identify the key nutrients to support ageing
3. Assess the nutritional status of older people
4. Identify factors affecting the nutritional status of older people
5. Identify the presentation of common degenerative diseases
6. Evaluate the orthodox medical and nutritional therapy approaches to a range of degenerative diseases

Assessment Criteria
To achieve the learning outcome you must demonstrate the ability to:
- Describe in detail the main theories of ageing
- Name the key nutrients required to support the ageing process including key antioxidants
- Describe the main physical, social, economic and emotional factors which affect the health of older people
- Describe the symptoms of a range of common degenerative diseases
- Describe the orthodox medical testing and treatment of a range of degenerative diseases
- Outline nutritional therapy measures which may be used to help modulate degenerative diseases
- Show awareness of the importance of referral with ‘Red Flag’ symptoms

Material to be covered
- Theories of ageing
- Key nutrients to support the ageing process
- Nutritional status of the aged

Pathophysiology, diagnostic criteria, orthodox and naturopathic nutritional approach to:
- Dementia
- Multiple Sclerosis,
- Parkinson’s Disease
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Unit 4: Naturopathic Nutritional Therapeutics

Day 10: Setting Up Practice

Aims:
- To provide information on essential requirements for professional practice as a nutritional therapist including legal and insurance obligations
- To explore ideas for practice development, goal setting and business plans
- To explore ongoing professional development options
- To provide information on relevant professional bodies and organisations

Learning Outcomes:
On successful completion you will be able to:

1. Explain all legal, ethical and professional parameters within which an nutritional therapist should operate
2. Identify avenues for ongoing professional development
3. Produce their own personal and professional development plan
4. Identify relevant professional organisations pertaining to nutritional therapy, their functions and codes of ethics

Assessment Criteria
To achieve the learning outcome you must demonstrate the ability to:

- Describe the legal obligations of a nutritional therapist
- Describe the ethical and professional guidelines which apply to nutritional therapists
- Outline a range of resources for continuing professional development
- Describe key elements of the Health Professionals Code of Conduct
- Create a professional development plan

Material to be covered
- Key requirements for practice development
- Disability and equality legislation
- Business and taxation requirements
- Developing business plans
- Creating goals and measurable outcomes
- Ongoing professional development
- Organisations, professional bodies and insurance requirements
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YEAR TWO ASSESSMENTS

Assessment Breakdown

For Assessment guidelines see the Study Docs sections of the student website

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