RACGP

Curriculum and syllabus for Australian general practice (7th edition)

Endocrine and metabolic health

RACGP Curriculum and syllabus for Australian general practice (7th edition): Endocrine and metabolic health.

Disclaimer

The information set out in this publication is current at the date of first publication and is intended for use as a guide of a general nature only and may or may not be relevant to particular patients or circumstances. Nor is this publication exhaustive of the subject matter. Persons implementing any recommendations contained in this publication must exercise their own independent skill or judgement or seek appropriate professional advice relevant to their own particular circumstances when so doing. Compliance with any recommendations cannot of itself guarantee discharge of the duty of care owed to patients and others coming into contact with the health professional and the premises from which the health professional operates.

Accordingly, The Royal Australian College of General Practitioners Ltd (RACGP) and its employees and agents shall have no liability (including without limitation liability by reason of negligence) to any users of the information contained in this publication for any loss or damage (consequential or otherwise), cost or expense incurred or arising by reason of any person using or relying on the information contained in this publication and whether caused by reason of any error, negligent act, omission or misrepresentation in the information.

Recommended citation

The Royal Australian College of General Practitioners. Curriculum and syllabus for Australian general practice (7th edition). Endocrine and metabolic health. East Melbourne, Vic: RACGP, 2026.

The Royal Australian College of General Practitioners Ltd

100 Wellington Parade

East Melbourne, Victoria 3002

Tel 03 8699 0414

Fax 03 8699 0400

www.racgp.org.au

ABN 34 000 223 807

Published September 2026

© The Royal Australian College of General Practitioners 2026

This resource is provided under licence by the RACGP. Full terms are available at www.racgp.org.au/usage/licence. In summary, you must not edit or adapt it or use it for any commercial purposes. You must acknowledge the RACGP as the owner.

We acknowledge the Traditional Custodians of the lands and seas on which we work and live, and pay our respects to Elders, past, present and future.

Contents

Endocrine and metabolic health 4
- Context 4
  - References 4
- Learning outcomes 6
- Key areas of learning 7
- Opportunities for learning 9
  - Words of wisdom 9
  - Learning strategies 9
  - Case example 11
- Learning resources 12
- Assessment 13

Endocrine and metabolic health

Context

Endocrine and metabolic health is central to Australian general practice. Endocrine and metabolic conditions contribute substantially to morbidity and health service use, with Australians losing around 5.8 million disability-adjusted life years (DALYs) in 2024, and overweight and obesity now the leading modifiable risk factor for disease burden.[1,2]

Diabetes is diagnosed in 6.6% of adults, with prevalence increasing with age and socioeconomic disadvantage.[3,4] An estimated 28% of diabetes is undiagnosed, highlighting opportunities for earlier detection.[5] Prevalence and complications are significantly higher among Aboriginal and Torres Strait Islander peoples, especially in remote regions.[4]

Metabolic syndrome is an important precursor to type 2 diabetes and cardiovascular disease. Prevalence varies, affecting around 7.1% of Aboriginal and Torres Strait Islander adults and around 4.6% of non-Indigenous adults, with higher rates in remote areas.[6] Overweight and obesity remain pervasive impacting around 66% of adults, with higher prevalence in regional/remote areas and among lower socioeconomic groups.[7] Lifestyle intervention is therefore a foundation for preventing and managing metabolic syndrome, polycystic ovary syndrome (PCOS) and type 2 diabetes.[7,8]

Osteoporosis and osteopenia remain under-recognised despite affecting around 853,600 Australians, with more than 183,000 fractures annually, resulting in a growing economic burden.[9–11]

Endocrine disease often involves non-specific presentations and diagnostic uncertainty, requiring a careful diagnostic approach that balances over and under-investigation. In thyroid disease, testing rates have increased faster than population growth.[12] Conversely, rare conditions such as Addison's disease can have protracted diagnostic delays due to non-specific symptomatology, underscoring the need for clinical vigilance and appropriate confirmatory testing.[13]

Pharmacological and technological advances are reshaping management. Newer medications initially for diabetes provide cardiorenal benefits beyond glucose lowering.[14] Continuous glucose monitoring supports improved collaborative, data-driven care in general practice settings.[15]

GPs play a fundamental role in endocrine and metabolic health throughout a patient's course of life, though prevention, early diagnosis, risk stratification, pharmacotherapy and technology integration, coordination of multidisciplinary care, and addressing inequities. Diagnostic stewardship, application of guidelines, and patient centred lifestyle counselling are essential to improving outcomes in Australia's communities.

References

1. Australian Institute of Health and Welfare (AIHW). *Australian Burden of Disease Study 2024: Summary*. Canberra: AIHW; 2024. Available from: https://www.aihw.gov.au/reports/burden-of-disease/australian-burden-of-disease-study-2024/contents/summary
2. AIHW. *Burden of disease – Overview* (updated 2025). Canberra: AIHW; 2025. Available from: https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/burden-of-disease/overview
3. Australian Bureau of Statistics. National Health Measures Survey [Internet]. Canberra: ABS; 2022-24 [cited 2026 Jan 19]. Available from: https://www.abs.gov.au/statistics/health/health-conditions-and-risks/national-health-measures-survey/2022-24.
4. Magliano D. *The Diabetes Landscape in Australia* (National Medicines Symposium, Nov 2025). Australian Commission on Safety and Quality in Health Care; 2025. Available from: https://www.safetyandquality.gov.au/sites/default/files/2025-11/diabetes-landscape-australia-national-medicines-symposium-2025.pdf
5. International Diabetes Federation. *IDF Diabetes Atlas (11th ed., 2024) – Australia report*. Brussels: IDF; 2024. Available from: https://diabetesatlas.org/data-by-location/country/australia/
6. Mondal UK, Huda MM, Anyasodor AE, et al. Metabolic syndrome in Australia: nationwide survey results by remoteness and Indigenous status, 2012–2019. *Int J Obes*. 2026;50:840-849. Available from: https://www.nature.com/articles/s41366-025-02013-y
7. Australian Institute of Health and Welfare. *Overweight and Obesity – Summary* (updated 17 Jun 2024). Canberra: AIHW; 2024. Available from: https://www.aihw.gov.au/reports/overweight-obesity/overweight-and-obesity/contents/summary

8. The Royal Australian College of General Practitioners (RACGP). *Management of type 2 diabetes: A handbook for general practice*. East Melbourne: RACGP; 2024. https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/management-of-type-2-diabetes/introduction

9. AIHW. *Osteoporosis and minimal trauma fractures* (updated 17 Jun 2024). Canberra: AIHW; 2024. Available from: https://www.aihw.gov.au/reports/chronic-musculoskeletal-conditions/osteoporosis

10. Wong P, Chen W, Ewald D, et al. 2024. RACGP & Healthy Bones Australia guideline for osteoporosis management and fracture prevention in postmenopausal women and men over 50 years of age. *Med J Aust*. 2025;222(9):472-80.

11. Healthy Bones Australia. *Osteoporosis and fractures in Australia: a burden of disease analysis, 2023–2033* (Deakin Health Economics; 2024) and subsequent updates. Available from: https://healthybonesaustralia.org.au/wp-content/uploads/2024/09/bod-2024-digital-isbn-final.pdf

12. Australian Commission on Safety and Quality in Health Care. *The Third Australian Atlas of Healthcare Variation – Thyroid investigations and treatments*. Sydney: ACSQHC; 2017. Available from: https://www.safetyandquality.gov.au/sites/default/files/migrated/3.0-Text-Thyroid-investigations-and-treatments-at-a-galnce.pdf

13. National Organization for Rare Disorders (NORD). *Addison's disease* 2018. Available from: https://rarediseases.org/rare-diseases/addisons-disease/

14. Qaseem A, Obley AJ, Shamliyan T, et al. Newer pharmacologic treatments in adults with type 2 diabetes: ACP guideline. *Ann Intern Med*. 2024;177(5):658-66.

15. Nanayakkara N, Cohen ND. Continuous glucose monitoring technology – understanding the benefits. *Medicine Today*. 2024;25(7):39-43. Available from: https://medicinetoday.com.au/mt/2024/july/regular-series/continuous-glucose-monitoring-technology-understanding-benefits

Learning outcomes

The GP is able to:

- screen for endocrine and metabolic conditions when indicated based on demographics, presentation, or other conditions
- assess and manage common endocrine conditions including diabetes mellitus, osteoporosis, and thyroid conditions
- Identify potential endocrine conditions of lower prevalence as they present and appropriately assess, investigate and refer as needed
- identify endocrine emergencies and initiate management
- provide patients and families with management plans that they are able to follow, including for self-management or intercurrent illness
- provide tailored advice and support to patients to reduce their risk of endocrine and metabolic conditions
- demonstrate awareness of certain endocrinological and metabolic diseases' impact on fitness to drive.

Key areas of learning

Metabolic syndrome and obesity:

- Definition metabolic syndrome
- Risk factors for metabolic syndrome and obesity
- Pharmacological and non-pharmacological management

Cardiovascular-kidney-metabolic (CKM) syndrome as a potential framework for often overlapping, multi-organ conditions.

Type 1 diabetes:

- Understanding the theorised pathogenesis
- Screening that should occur in all patients with type 1 diabetes
- Plans for sick days
- Safety issues that may arise, including driving and in other settings or activities
- Symptoms of diabetic ketoacidosis
- Emergency management of diabetic ketoacidosis
- Potential complications of type 1 diabetes
- Assess and manage causes of diabetes related mortality and morbidity, including cardiovascular disease

Diabetes:

- Recognise presentations that may be latent autoimmune disease of adults or monogenic diabetes and initial appropriate investigation and management
- Be able to perform and interpret a finger prick blood glucose / sugar level

Osteoporosis:

- Conditions that warrant referral for bone densitometry testing
- Medical definition of osteoporosis
- Pharmacological and non-pharmacological options for the management of osteoporosis
- Describe how osteoporosis can be prevented

Vitamin D deficiency:

- When vitamin D screening is indicated (and rebated through Medicare)
- Manage vitamin D deficiency

Adrenal disease:

- Cushing's and Addison's disease (causes, symptoms, when and how to investigate for it, interpret investigation results, and provide management options)

Thyroid conditions:

- Identify through history and examination when it is appropriate to investigate for thyroid disease
- Interpret investigation results and provide management options (including education, pharmacological therapy, and referral if needed) for:
    - goitre
    - hyperthyroidism
    - hypothyroidism
    - thyroiditis
    - nodules and/or malignancy.

Parathyroid conditions:

- Identify through history, examination, and existing pathology results when it is appropriate to investigate for parathyroid disease
- Interpret investigation results and provide management options (including education, pharmacological therapy, and referral if needed) for:
    - hypoparathyroidism
    - hyperparathyroidism.

Pituitary adenoma (symptoms, examination findings, investigation and appropriate management steps)

Phaeochromocytoma:

- Potential symptoms and clinical findings
- Investigations and initial management if the investigations are positive

Growth hormone disorders:

- Describe the cause, symptoms, investigations, and general management of growth hormone deficiency and growth hormone excess.

Arginine Vasopressin Deficiency (AVP-D) and Arginine Vasopressin Resistance (AVP-R) (previously known as diabetes insipidus):

- Understand the differences between AVP-D and AVP-R and the causes of each
- Clinical presentations, investigation, and management

Inborn errors of metabolism:

- Describe examples of these conditions and what GPs need to know about genetic screening for these disorders
- Know how to discuss this with parents and potential parents

Opportunities for learning

Words of wisdom

- Remember to consider osteoporosis. It is underdiagnosed and undermanaged in Australia and occurs not just in elderly people but also in people with other medical conditions. Remember to consider a patient's eligibility for Medicare-rebateable screening.

- See the whole patient in the context of their life (both past and present). This may mean, for instance, acknowledging the link between obesity and mental health issues, such as adverse childhood experiences and prior or current abuse. Don't be afraid to take complex histories from your patient and be ready to assist and support them, where necessary.

- Make sure that your management plans are practical and tailored to the patient, rather than a generic list of things that you feel should be done. For example, if a patient is unable to administer daily insulin, consider an alternative prescription, such as weekly injectable hypoglycaemic agents. Be realistic and include your patient in treatment planning.

- Always bear in mind how endocrinological and metabolic conditions can impact fitness to drive. As a patient's condition changes, so too may their safety in driving. Always refer to the fitness to drive guidelines, refer to a non-GP specialist if necessary, discuss the issue with your patient, and report to the local transport authority if necessary.

- Do not judge patients who are struggling with weight problems. Many people are uncomfortable discussing this topic with their doctor for fear of bias and stigma. Show your patients support without criticism, acknowledging the many challenges of weight loss.

Learning strategies

On your own

Conduct an informal literature review on the management of type 2 diabetes in Aboriginal and Torres Strait Islander peoples.

- *What did you learn from your literature search? Did anything surprise you? How does it change your practice*?

Identify your local referral pathways for bariatric surgery.

- *Does your local health network offer this service? If so, what are the inclusion and exclusion criteria?*
- *When should you offer this option to a patient?*

Identify the indications in Australia for vitamin D deficiency screening.

- *When is screening for this funded under the MBS and when is it not? How often should it occur in those who are eligible?*
- *How should people be treated if deficiency has been found?*

With a supervisor

Do a role-play where your supervisor is a patient with type 1 diabetes and take them through a 'sick day plan'.

- *Did you miss anything in your sick day plan? Where might you find more information (and patient handouts) on this? Does your supervisor have any suggestions?*

With your supervisor, do a case review of two or three of your patients with type 2 diabetes and discuss how they were managed.

- *Were there differences in your management approaches between patients? If so, why (or why not)?*
- *How did your management align with recommended guidelines?*
- *Was the recommended screening (for both complications and associated conditions) undertaken?*
- *How can things be incorporated into a patient's management plan so that it does not get missed?*

Do an informal presentation to your supervisor on the major adrenal diseases and the role of the GP in these conditions.

- *Did your supervisor agree with your summary on the role of the GP in these conditions?*
- *Where would you find resources relevant to GPs on this topic?*
- *Does your supervisor have any patients they have managed with adrenal disease that they can discuss with you?*

In a small group

Discuss how you might sensitively approach the topic of weight and lifestyle risk factors (such as diet and exercise) with a patient or parent (of an overweight child).

- *What strategies does the evidence suggest in this area? Are some strategies better than others? How can you help patients to feel empowered about making good lifestyle choices?*

Practise with your peers giving a new diagnosis of type 2 diabetes to a patient.

- *Are there online resources (including YouTube videos) that can help you with this?*
- *Consider how you might adapt your discussion for different patient demographics; for example, people in remote Aboriginal or Torres Strait Islander communities, patients of differing education levels, and culturally and linguistically diverse groups.*

Discuss when you would order calcium levels on a patient and what you would do if they came back high or low.

- *Where can you find relevant information on this?*
- *Does all your group agree about when calcium testing should be done?*
- *Discuss the relationship between parathyroid hormone, vitamin D, and calcium, and their interactions.*

With a friend or family member

Discuss what your friend or family member understands about osteoporosis, with an emphasis on how to prevent it, then fill in the gaps in their knowledge.

- *How can you tailor your advice on osteoporosis prevention so that it is meaningful to the person?*
- *Do you have any practical suggestions to overcome the barriers people may face in making the necessary lifestyle changes?*

Give a short talk (10–15 minutes) to a friend or family member in lay terminology on hypothyroidism and hyperthyroidism. Include the differences between the thyroid function tests (ie TSH, T4 and T3), when imaging is required and sub-clinical hypo / hyperthyroidism.

- *Ask for feedback. Did they clearly understand everything you said? If not, how can you explain it more simply? Are there patient handouts that could help?*

Case example

Lena is a 35-year-old woman with type 1 diabetes who presents for a general review at the urging of her endocrinologist. Although she regularly visits her endocrinologist, she infrequently attends the GP practice. Lena is on insulin through an insulin pump and has an intrauterine device.

In a case-based discussion, questions relating to each role could be:

Communicator

- How would you address Lena's infrequent attendance to the practice? How could you engage Lena?
- How would your communication style change if Lena had an intellectual disability? What if she presented with a family member or other carer?
- How would your communication change if you were working in a remote Aboriginal community?

Clinician

- What specific questions should you ask Lena at this appointment? What examination would you do?
- What is the most relevant and important information you would look for in the letter from Lena's endocrinologist?
- Are there any mental health conditions you need to consider? If so, which ones and how would you screen for them?
- What are the associated (non-diabetic) conditions that should be screened for in Lena because she has type 1 diabetes?
- Which complications of diabetes does Lena need to be screened for and how often?
- What if Lena were a child or adolescent? How would your screening for complications differ?
- What guidelines or resources would you use in caring for Lena?

- What if Lena told you she would like to become pregnant for the first time? What should you discuss with her?
- What if Lena were an 85-year-old woman in an aged care home? How would that change your management?
- What if Lena told you that she uses complementary therapies at the encouragement of a diabetes support group on Facebook? What questions would you ask and what advice would you give her about this?
- How would your management change if you were in a remote Aboriginal or Torres Strait Islander community with no visiting dieticians or diabetes educators, and no way for the patient to see one elsewhere?
- If Lena reported having trouble with her insulin pump, what would your next step be?
- If Lena presented to your clinic very unwell (with either hypoglycaemia or hyperglycaemia), how would you immediately manage this?
- How would you manage the consultation if Lena had just arrived from overseas and had limited information with her about her condition?
- What potentially life-threatening situations do you need to know about in Lena's case and how would you manage them if they occurred in your general practice?
- What advice would you give Lena in identifying and self-managing those conditions?

Health advocate and leader

- If Lena identified as Aboriginal or Torres Strait Islander, what government initiatives could assist Lena to make lifestyle changes?
- What strategies can you implement in your practice to encourage Lena to present to a GP more regularly? What are your medico-legal obligations in terms of contacting Lena? For example, regarding abnormal pathology investigations.

Professional

- When you read the endocrinologist's letter, you decide that their management plan is not appropriate for Lena given what you know about her. What would your next step be?

Scientist, educator and researcher

- You are going to facilitate a small group learning session at your practice about insulin pumps. How would you do that and what would be your intended learning outcomes?
- If Lena attends asking for her IUD to be removed as she plans to become pregnant, what clinical guidelines would be relevant?

Learning resources

The curriculum website includes learning resources within each unit.

Assessment

Content in this unit will be assessed in a variety of ways.

Workplace based assessments

Mini-CEX	RCA	MSF	CBD	Reflective exercise	Audit	Mid and end term assessment

Fellowship examinations

AKT	KFP	CCE

KEY

- Expected to be assessed here always
- Often assessed here but not in every example / case / assessment
- May at times be here or contribute to the assessment

ABBREVIATIONS

Mini-CEX – Mini-clinical evaluation exercise
RCA – Random case analysis
MSF – Multi source feedback
CBD – Case-based discussion
AKT – Applied knowledge test
KFP – Key feature problem
CCE – Clinical competency exam