

FOUNDATIONS OF HAIR & SCALP: ANATOMY & FUNCTION 2

INTRODUCING HEALTHCERT EDUCATION

HealthCert Education is a global professional education provider dedicated to saving lives and improving patient outcomes through accredited primary care education for medical professionals. HealthCert Education does not accept sponsorship or commercial interest investment when delivering course content.

PREREQUISITES (MANDATORY)

There are no prerequisites.

COURSE CONTENT

This course explores the structure and function of the hair shaft, variations in hair types, determinants of pigmentation, and the anatomy of the scalp. Building on Part I, participants will examine the composition of keratins, the organisation of cuticle, cortex and medulla, and how bonds within the shaft influence strength, elasticity, and curl pattern. The course highlights how chemical and heat treatments alter these bonds and may contribute to shaft fragility, split ends, and acquired disorders such as trichorrhexis nodosa. Learners will also study human hair classifications including terminal, vellus and lanugo hair, with emphasis on racial and ethnic variations that affect clinical presentation and disease risk. Finally, the course addresses the unique features of scalp skin, its innervation and blood supply, and the wide spectrum of inflammatory, infectious, autoimmune and neoplastic disorders that commonly present in this region. By integrating microscopic anatomy with clinical relevance, the program equips participants with essential skills for recognising, diagnosing, and managing hair and scalp conditions.

This course is evidence-based, demonstrates best practice and is regularly updated.

RELEVANCE TO GENERAL PRACTICE:

Androgenetic alopecia (AGA), otherwise known as pattern hair loss, is the most common form of hair loss in both men and women. In brief, the hair cycle consists of 3 main phases: anagen (growth), catagen (transitional) and telogen (resting), with hair follicles cycling between these stages to produce and shed hair over time. The prevalence of AGA increases with age. Male pattern hair loss is thought to affect 80% of males by the age of 80. Female pattern hair loss affects approximately 12% of women aged between 20 and 29 years to 40% of women by age 50.¹

Understanding the hair shaft, its cuticle, cortex, medulla, and the overlying scalp skin, including pigment cells, is essential. Like skin, hair gets its colour from the pigment melanin, which is produced by melanocytes in the hair papilla. Differences in hair colour are genetically determined and can be attributed to different types of melanin. This underscores the need for general practitioners to be equipped with foundational knowledge in medical trichology for accurate recognition, management, and referral.²

In Australia, hair loss—such as alopecia areata—is not rare; in primary care, new cases present at an incidence rate of about 0.278 per 1000 person-years, with a point prevalence of 0.13% as of late 2020. This underscores the need for general practitioners to be equipped with foundational knowledge in medical trichology for accurate recognition, management, and referral.³

1. Australian Prescriber, Male and female pattern hair loss, 2025, <https://australianprescriber.tg.org.au/articles/male-and-female-pattern-hair-loss.html>
2. Medical Hair Restoration Australia, Anatomy of Hair, 2025, <https://www.mhra.com.au/anatomy-of-hair/>
3. Dermatology Republic, New Alopecia Areata Snapshot Offers National Insights, 2023, <https://www.dermatologyrepublic.com.au/new-alopecia-areata-snapshot-offers-national-insights/2058>

LEARNING OUTCOME:

1. Interpret information on hair shaft anatomy and the hair cycle to make clinical decisions.
2. Apply knowledge of hair shaft anatomy and the hair cycle to patient cases.

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PRESENTER:

This course is presented by Dr Ahmed Kazmi.

RECORDING:

Listen and learn about the foundations of hair and scalp: Anatomy & function part 2. The recording can be paused at any point to reflect on content and has a sophisticated search option for locating specific topics. You can copy and paste key slides into your personal document for ongoing reference.

RECOMMENDED READING:

There are recommended open access readings and articles to enhance learning.

CASE DISCUSSIONS:

There are interactive case discussions to reinforce learning, where participants are encouraged to research, view other responses and discuss topics with other participants. Expert answers are provided once case discussions are submitted.

ASSESSMENT:

There are two online multiple choice examinations for assessment:

- Knowledge-based questions.
- Scenario-based questions with a focus on cases of patient care in the clinical environment.

Assessment is not timed and can be repeated if the 80% pass mark is not achieved with the first attempt.

ACCREDITATION:

HealthCert courses align with the continuing professional development accreditation requirements.

EVALUATION:

An evaluation at the end of the course enables HealthCert Education to continually improve education content.

FUTURE PATHWAY OPTIONS:

Further topics relating to mental health can be viewed on www.healthcert.com. An online chat option on the web page provides you direct access to an Educational Advisor or, if you prefer email, info@healthcert.com. If you would like to speak to an educational advisor, please call 1300 856 695 (Australia) or +44 203 514 0688 (international).

CONTACT HEALTHCERT

Please contact admin@healthcert.com with any questions.

VERSION CONTROL TABLE

All changes must be approved by the Head of Academic Standards or Head of Accreditation.

Version no.	Version date	Authorised officer	Amendment details
1.			
2.			