Skin & Hair Anatomy

Module 2
2025 Katica Advanced Aesthetics

Skin & Hair Anatomy

Understanding the structures we're treating.
Each layer plays a role in how laser energy is absorbed and distributed

Layers of the Skin

- Epidermis – outer layer, contains melanin
- Dermis – collagen, blood supply, where heat travels
- Subcutaneous – fat layer, insulation

Clinical Insight:

- Melanin in the epidermis affects energy absorption
- Heat travels through the dermis during treatment

Key Takeaway:
Laser energy interacts differently at each depth

Key Structures

Key Structures in Laser Treatments

- Melanocytes – produce pigment
- Hair Follicle – primary target in hair removal
- Blood Vessels – target for vascular treatments

Laser treatments are designed to target specific structures within the skin, known as chromophores. By selecting the appropriate wavelength and settings, we can focus energy on these targets while minimizing impact to the surrounding tissue.

These are the structures we are targeting with laser energy

Hair Growth Cycle

Hair Growth Cycle

- Anagen – active growth phase (BEST time to treat)
- Catagen – transition phase
- Telogen – resting phase

Laser hair removal is most effective during the anagen phase, when the hair is actively growing and connected to the follicle. Because not all hairs are in this phase at the same time, multiple treatments are required to effectively target all follicles over time.

Key Takeaway:
This is why multiple sessions are required

Clinical Relevance

Understanding skin and hair anatomy is essential for safe and effective laser treatments. It allows you to make informed decisions when selecting settings, timing treatments, and evaluating client responses.

Clinical Application

- Guides proper treatment timing
- Supports accurate parameter selection
- Improves treatment results
- Reduces risk of complications

Clinical Insight:
Effective treatments are not just about the device — they depend on understanding the structure you are targeting.