

# TỔNG QUAN VỀ CÂY LÔNG MÀY TỰ THÂN BẰNG PHƯƠNG PHÁP FUE



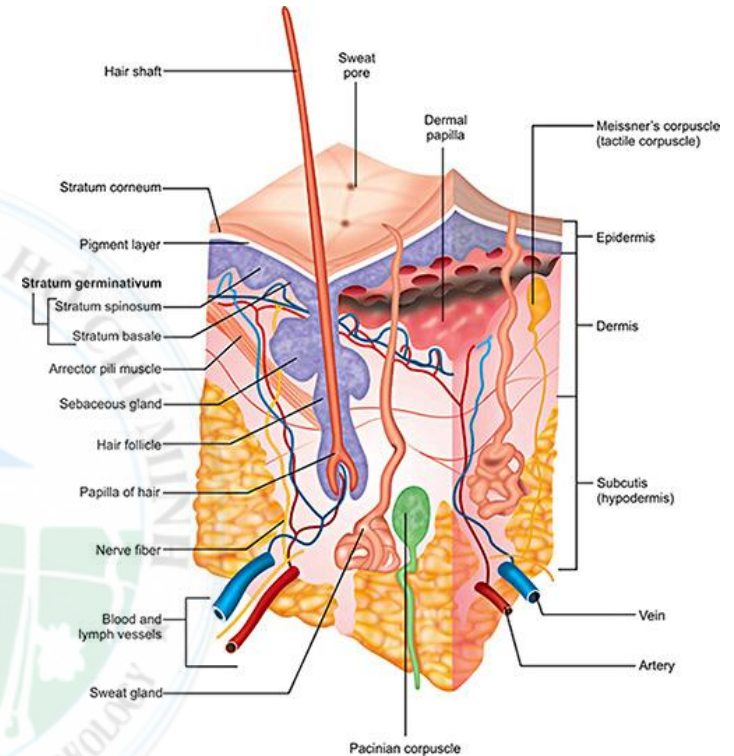
Ths Bs Nguyễn Vũ Huân  
KHOA NGOẠI BỆNH VIỆN DA LIỄU TP HCM

# GIẢI PHẪU

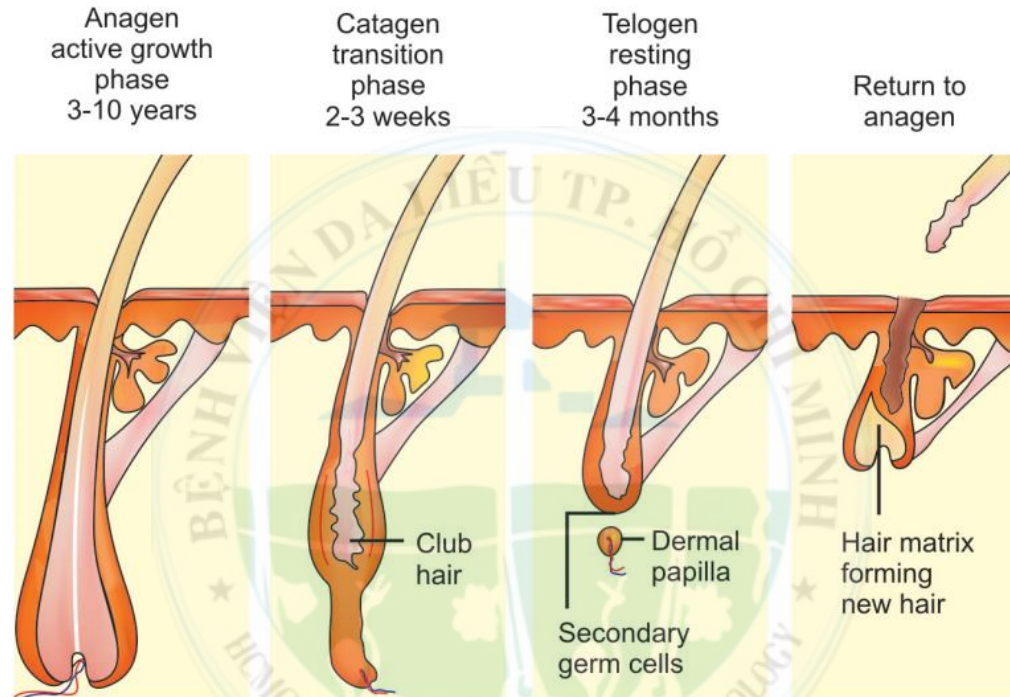
## ĐƠN VỊ NANG TÓC

Đơn vị nang tóc (FU) của da đầu người trưởng thành thường bao gồm hai đến bốn sợi tận cùng và một hoặc hai sợi đơn, kết hợp với ống tuyến bã, cơ vận lông.

Ở lớp bề mặt của da thường tìm thấy hai hoặc ba sợi lông trong một ống duy nhất



# Chu kỳ nang tóc

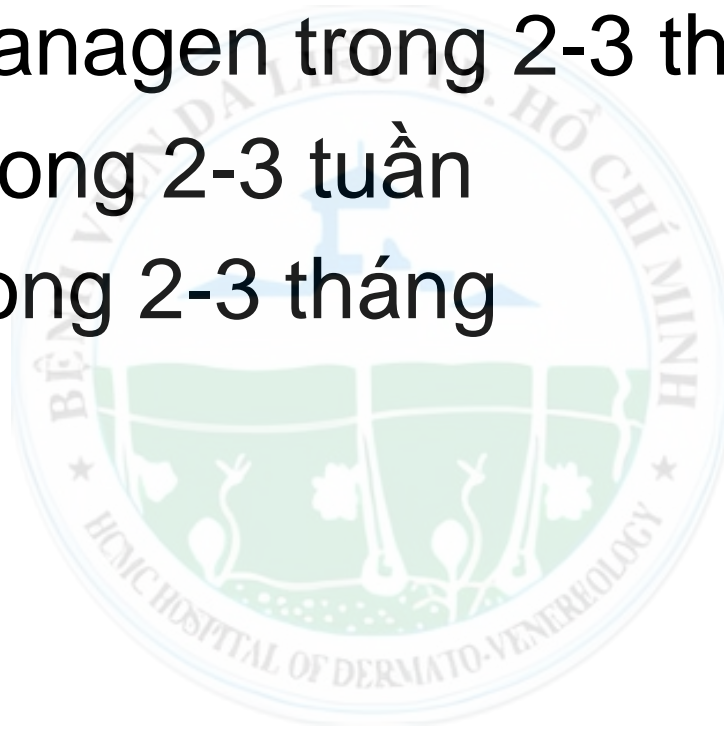


**Figure 1.8**

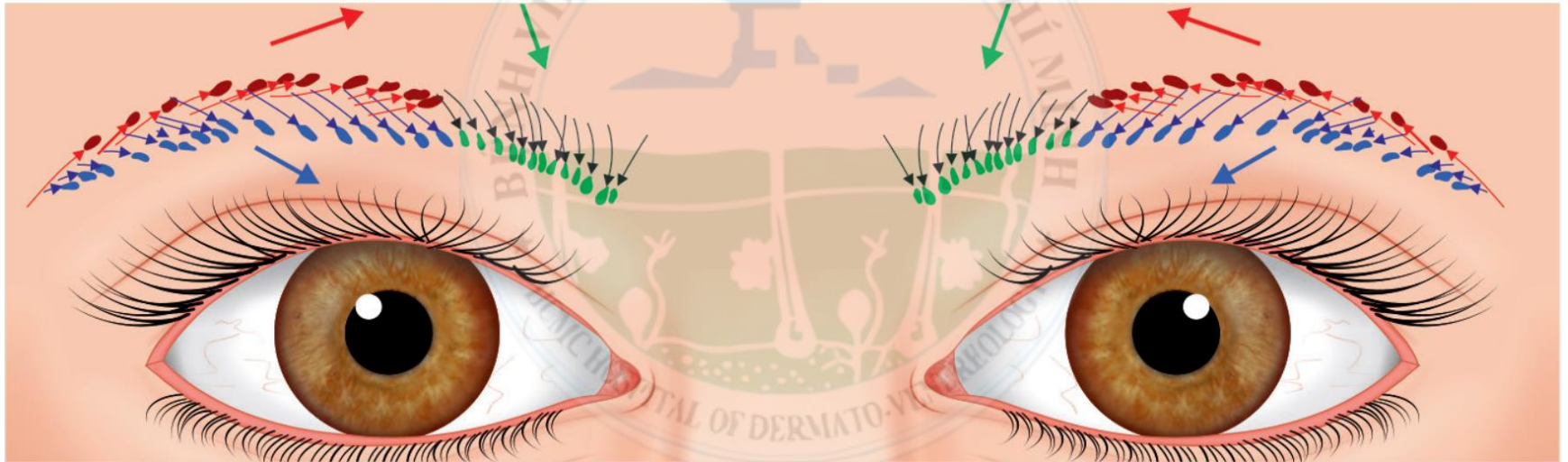
Hair growth can be divided into three phases: Anagen (active growth), catagen (active loss) and telogen (resting phase). In the scalp, 90% of hairs remain in the anagen phase. Catagen only lasts about 2 to 3 weeks and is characterized by the hair-shaft separation of the dermal root, and it is recognized by a thin connective tissue strand connecting the two. About 10% of hairs are in telogen phase at any given moment and this lasts about 2 to 3 months. Catagen phase is the shortest of three phases and occurs prior to telogen. As the basal attachment becomes even more attenuated, the hair shaft detaches from the dermal root resulting ultimately in the hair falling out (known as exogen). Scalp hairs are asynchronously in these three cycles at any given time.

# Chu kỳ nang lông mày

- Giai đoạn anagen trong 2-3 tháng
- Catagen trong 2-3 tuần
- Telogen trong 2-3 tháng



# Giải phẫu lông mày



# Nguyên nhân rụng lông mày

## CAUSES OF EYEBROW AND EYELASH LOSS

- Avulsion and burns
- Tumor excision or irradiation
- Trichotillomania
- Complications from tattooing eyebrows and eyelids
- Dermatologic diseases
- Alopecia after infection and cicatrization of piercing channels
- Incisions in the supraorbital area in direct brow lift procedures
- Endocrinopathies such as thyroidopathy
- Congenital aplasia
- Repeated electrolysis for eyebrow shaping
- Repeated plucking or excessive laser hair removal

# Nguyên nhân rụng lông mày

Common etiologies, presenting symptoms, trichoscopy, diagnosis, and treatment of eyebrow alopecia

Etiology	Eyebrow presentation	Eyebrow trichoscopy	Treatment
Alopecia areata	<p>Patchy eyebrow loss bilaterally</p> <p>Bilateral patchy eyelash loss in upper and lower lids</p>	<p>Exclamation mark hairs are not very numerous. Cadaverized hairs, yellow dots, and black dots [20] are usually visible</p>	<p>Eyebrows: no standard treatment. Successful reported treatments include baricitinib 4 mg/day [82], ILTA 2.5 mg/mL (0.5 mg to each eyebrow) [81], topical tofacitinib 2% gel twice daily [84], oral tofacitinib 15 mg (case reports) [121, 122], pulsed diode laser at 904 nm (case report) [87]</p> <p>Eyelashes: no standard treatment. Successful reported treatments include baricitinib 4 mg/day [82], bimatoprost 0.03% solution once daily [88], topical tofacitinib 0.005% eye drops once daily [84]</p>
Frontal fibrosing alopecia	<p>Non-scarring alopecia starting on the lateral eyebrow</p> <p>Regrowth of eyelash hair in different directions [26]</p>	<p>Tapered and broken hairs, hair growing in different directions, black red, or yellow dots, dystrophic hairs, pili torti, and white areas of skin lacking follicular openings [31, 32]</p>	<p>Eyebrows: no standard treatment. Successful reported treatments include light-emitting diodes (630 ± 5 nm) [31], ILTA 2.5 mg/mL monthly [96], finasteride 2.5 mg/day (case series) [123], topical bimatoprost 0.03% solution (case series) [94], low dose oral minoxidil (case series) [95]</p> <p>Eyelashes: no standard treatment</p>
Keratosis follicularis spinulosa decalvans	<p>Scarring alopecia of the eyebrows presenting as sparse eyebrows</p> <p>Sparse eyelashes</p>	<p>Yellow dots and dystrophic hairs [45]</p>	<p>No standard treatment. Successful reported treatments include dapsone (100 mg/day) and topical corticosteroids to decrease inflammation (case report) [124], topical emollients and keratolytics to improve skin texture (case report) [45]</p>
Leprosy	<p>Loss of eyebrows and eyelashes bilaterally in approximately 9.3–36.5% of patients [47, 48]</p>	<p>Reduced hair density, multiple vellus hairs, pigment distortion, targetoid pigmentation, pinpoint white dots, and white-yellowish areas lacking structures [49]</p>	<p>Multiple-drug therapy with dapsone, rifampin, and clofazimine can be used to treat leprosy, but eyebrow regrowth is exceptional [50]</p>
Tinea faciei/blepharo-ciliaris	<p>Pink to red scaly, inflammatory patches and plaques over eyebrows</p> <p>Itchy erythematous patch involving the eyelid and broken eyelash hairs [57]</p>	<p>Comma hairs, corkscrew hairs, bent hairs, morse code hairs, zigzag hairs [56]</p>	<p>Topical antifungals ± oral terbinafine or oral itraconazole (case report) [57]</p>
Trichotillomania	<p>Isolated eyebrow hair loss without erythema</p> <p>Isolated alopecia only upper or lower eyelashes rather than both [74]</p>	<p>Black dots, broken hairs at different lengths, hook hairs, tulip hairs, and the V sign [73]</p>	<p>Psychotherapy [105]</p>

# CHỈ ĐỊNH VÀ LỰA CHỌN BỆNH NHÂN

## INDICATIONS: WHAT ALOPECIAS MAY BE TREATED WITH A HAIR TRANSPLANT?

TYPE OF ALOPECIA	SHOULD BE TRANSPLANTED?
1. MALE ANDROGENETIC ALOPECIA	<b>YES</b> (except diffuse types)
2. FEMALE ANDROGENETIC ALOPECIA	<b>YES</b> (except diffuse types)
3. PRIMARY CICATRICAL ALOPECIAS	<b>IN SELECTED CASES</b> (they should be stabilized. Discuss with the patient the expectation of survival of the grafts).
4. SECONDARY CICATRICAL ALOPECIAS	<b>IN SELECTED CASES</b> (discuss with the patient the expectation of survival of the grafts).
5. ALOPECIA AREATA	<b>NO</b>
6. TELOGEN EFFLUVIUM	<b>NO</b>
7. TRIANGULAR TEMPORAL ALOPECIA	<b>YES</b>
8. TRACTION ALOPECIA	<b>YES</b> (but the causal factor should be avoided)
9. TRICHOTILLOMANIA	<b>NO</b>
10. HAIR SHAFTS DISORDERS	<b>NO</b>



# CHỈ ĐỊNH



Repeated overplucking damaged the eyebrow hair follicles of this 57-year-old woman. She is shown preoperatively and 1 year after eyebrow reconstruction.

# CHỈ ĐỊNH



This 26-year-old man presented with eyebrow aplasia. He is shown preoperatively and 18 months after eyebrow reconstruction.

# CHỈ ĐỊNH

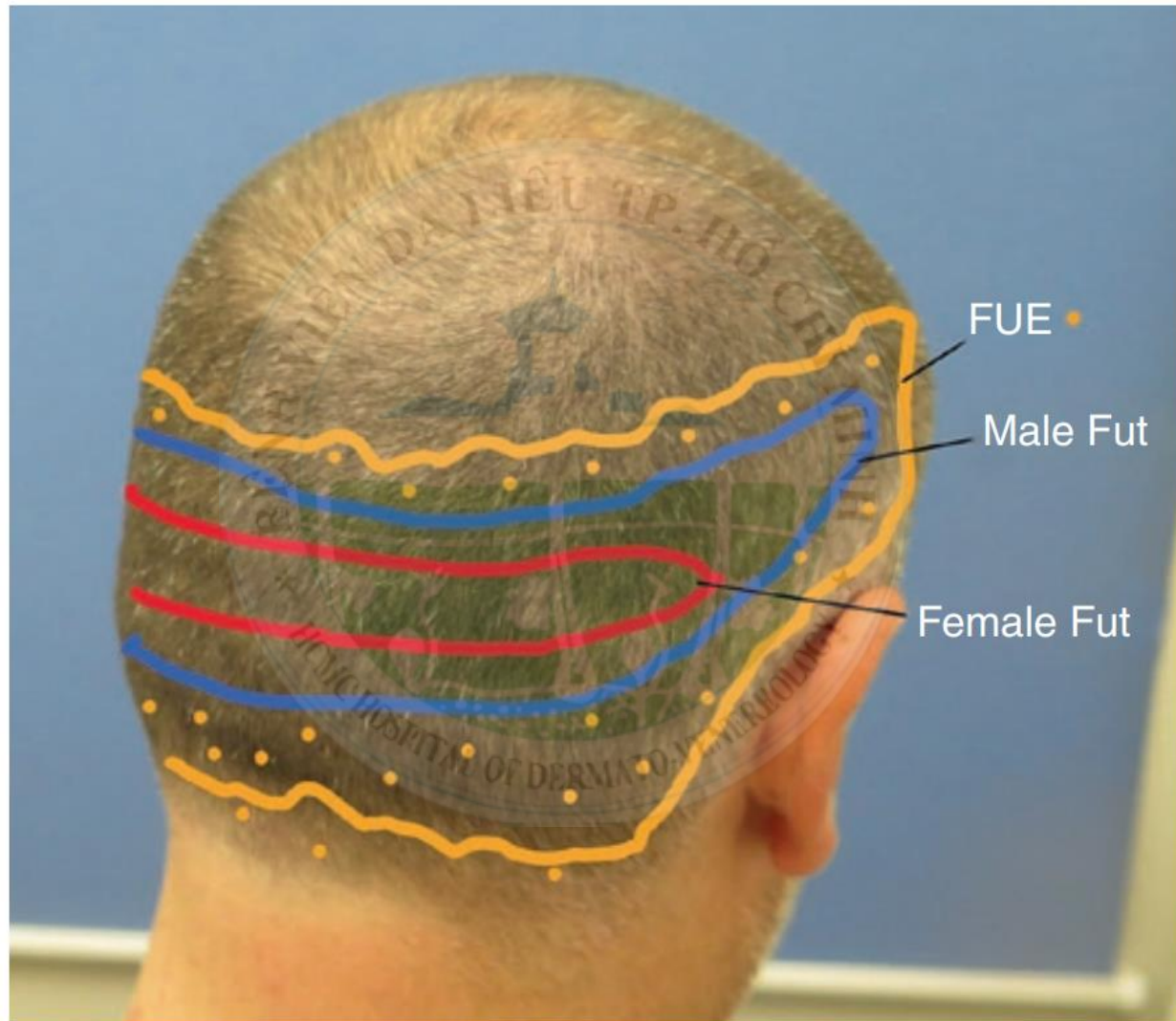


# LỊCH SỬ FUE

## Follicular Unit Extraction

- 1988: Dr.Masumi Inaba (Nhật) giới thiệu pp dụng kim 1mm để lấy các đơn vị nang tóc
- 1989: Tiến hành thành công trên bệnh nhân bởi Dr Ray Wood (Úc)
- 2002: Được mô tả trong tài liệu y khoa của Rassman và Bernstein trong “Cấy nang tóc: Thủ thuật xâm lấn tối thiểu trong cấy tóc”.
- 2008: FUE Robot được mô tả năm 2007

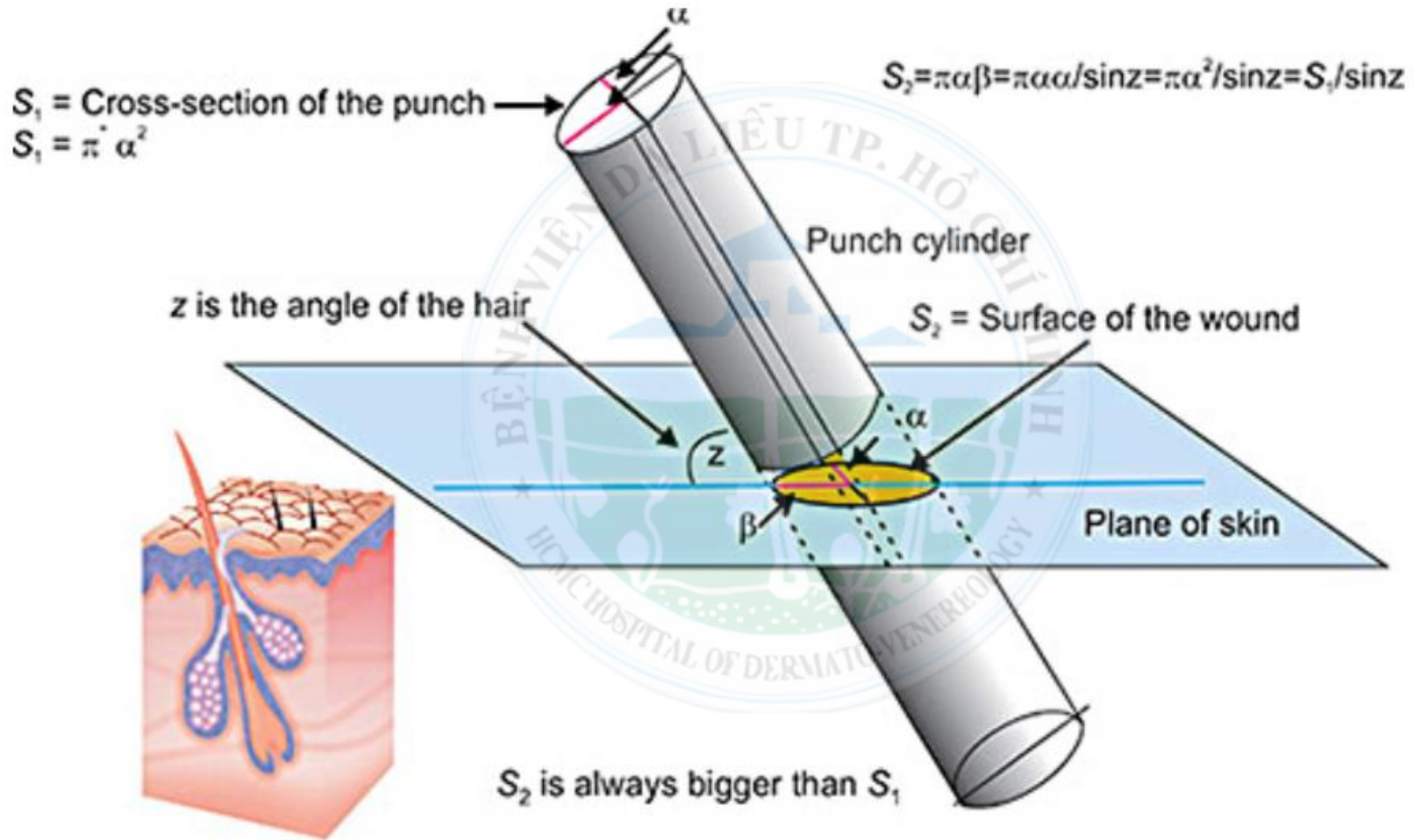
# FUE



# FUE



# FUE



# FUE

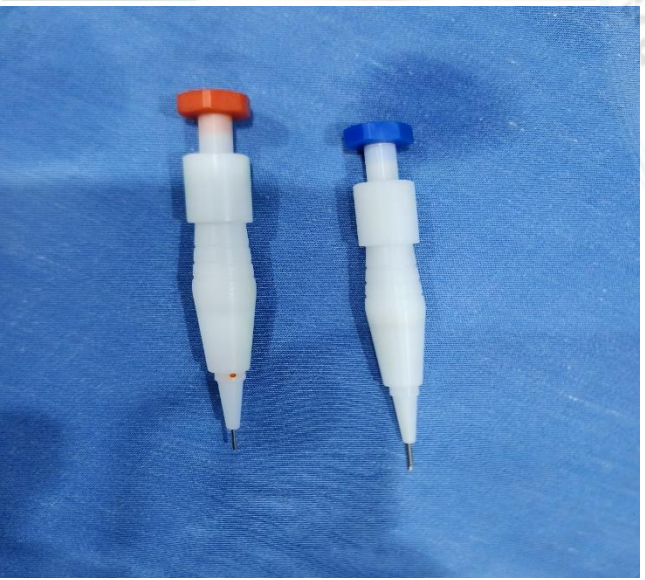
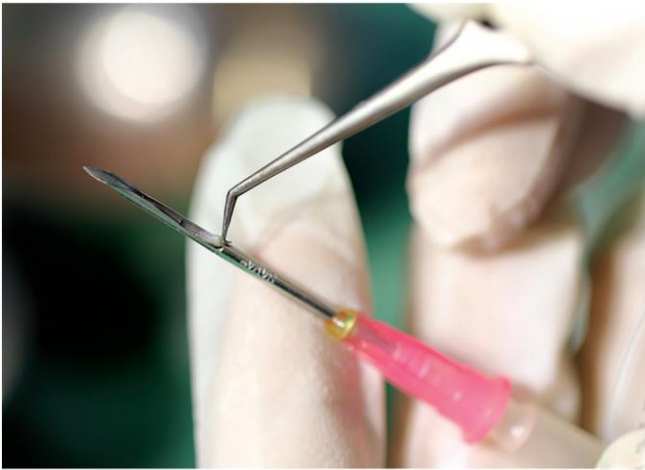




# Chọn lựa FUE

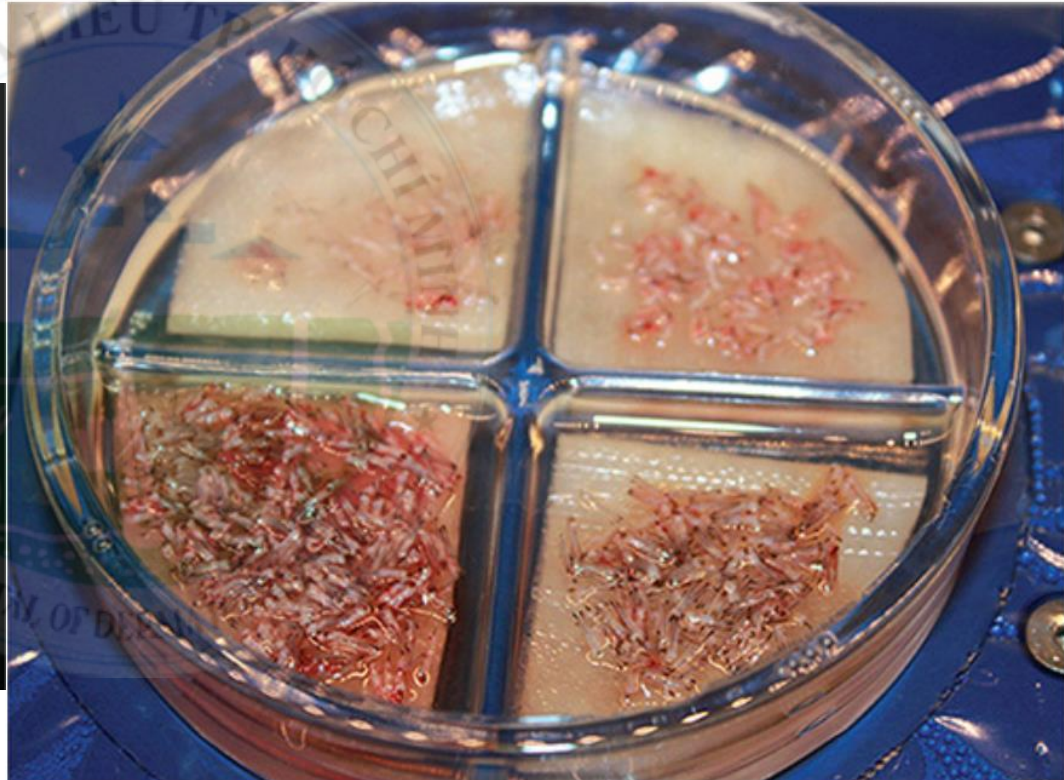
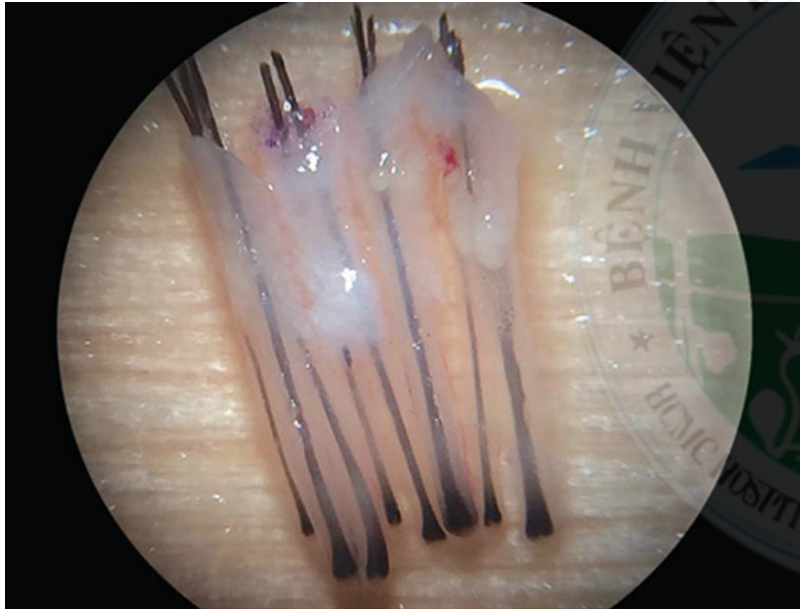
- A patient wants to have the least painful postoperative course.
- The scalp is very inelastic.
- A patient wants to resume full exercise as soon as possible.
- A patient wants to wear his hair very short and wants to avoid a linear scar.
- A patient has donor-healing problems from previous strip surgery.
- Old-style larger grafts need to be thinned.
- Body hair needs to be harvested.
- Finer hairs need to be selected for the hairline or eyebrows.
- A patient has a history of hypertrophic or keloid scarring.
- Repairing prior strip scars.
- The patient has low donor density.

# Direct Hair Transplantation



# Bảo quản nang tóc

Nang tóc được trữ trong dung dịch HypoThermosol-ATPv, làm lạnh ở 4–5°C



# Chuẩn bị trước phẫu thuật



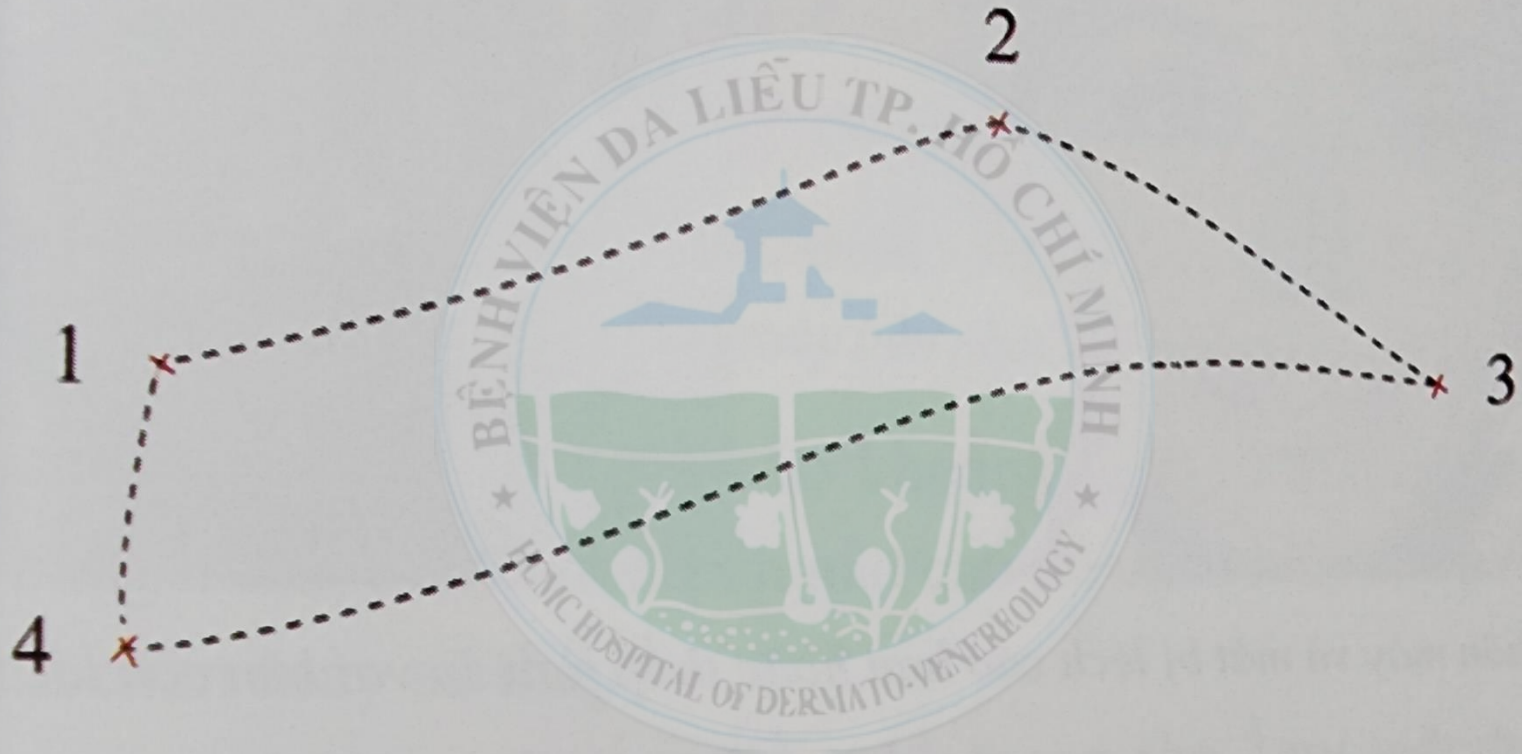
# Trang thiết bị



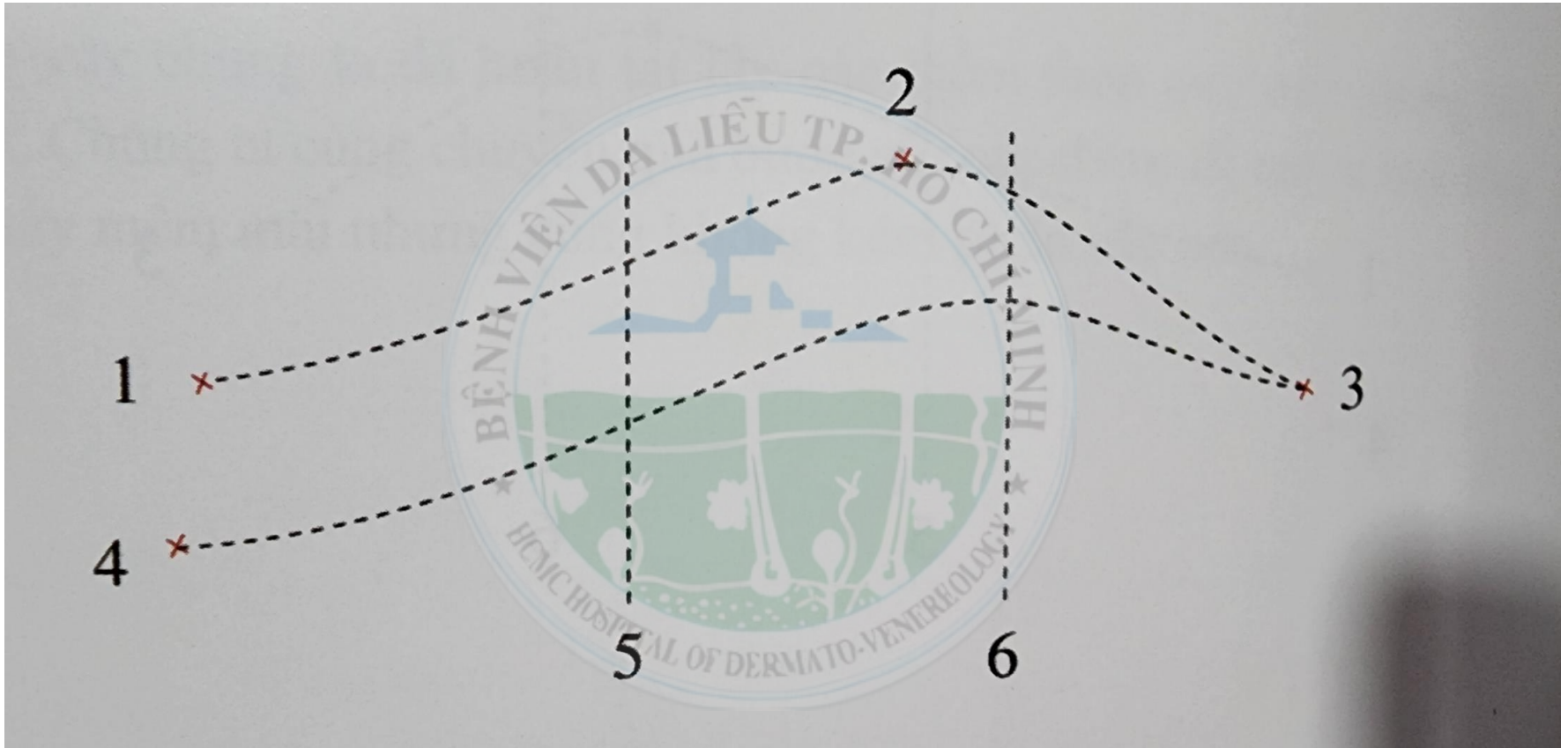
# Thiết kế và cấy



# Thiết kế

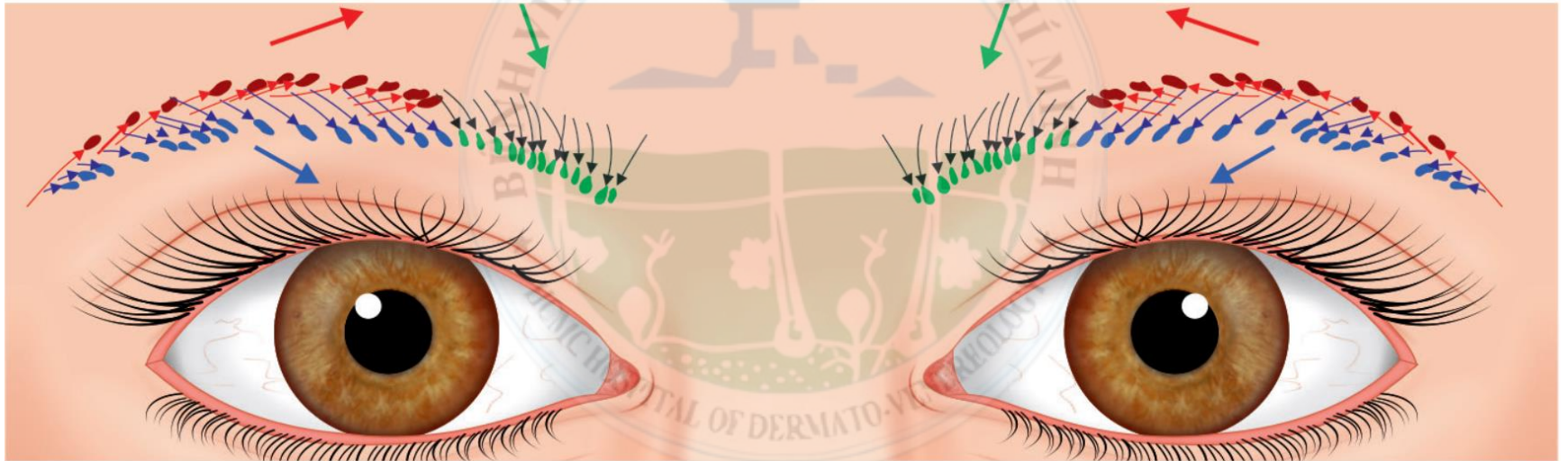


# Thiết kế





# Thiết kế



# Thiết kế



# Sinh hoạt

<i>Activity</i>	<i>Days</i>
Pour water from cup over head with patting of small amount of shampoo throughout the graft area and donor area	1–3
Light circular motion when shampooing of the grafts	4
Use of aspirin	1
Use of hairdryer	1
Use of hairspray	1
Use of mousse or gels	3
Normal brushing of the grafts	7
Return to brushing normal <i>nongrafted</i> hair as usual	1
Use of hot rollers	7
Chemical hair treatment and perms	7
Light exercise (walking, etc.) heart rate under 100 beats per minute	1
Intense exercise (running, aerobics, etc.)	7
Swimming and other sports	7
<i>Resume use of Rogaine (if not allergic to Rogaine)</i>	3

# Tài liệu tham khảo

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**XIN CẢM ƠN ĐÃ LẮNG NGHE**