# HAIR OF ISTANBUL 2025 ANNUAL CLINICAL REPORT

#### Scientific Outcomes, Density Success Rates and Patient Safety Model

(01 January 2025 – 06 December 2025)

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**Reporting Period:** 01.01.2025 - 06.12.2025

**Total Number of Procedures (all sessions): 1,250** 

Total Estimated Graft Count: ~4,750,000 (1,250 × mean 3,800 grafts)

## **EXECUTIVE SUMMARY**

This report provides a scientific overview of Hair of Istanbul's clinical activity between 01 January 2025 and 06 December 2025, covering:

Surgical volume and graft statistics

- Techniques used and technical protocols
- Patient profile and referral pattern
- Clinical outcomes and follow-up model
- Complication and revision rates
- Safety, anesthesia and sterilization standards
- Al-assisted hair analysis and planning

Key figures for the reporting period:

- Total procedures: 1,250
  - 6 revision procedures on Hair of Istanbul's own patients
  - 124 planned second-session patients of Hair of Istanbul
  - 185 revision patients previously treated at other clinics
  - 8 female hair transplantation patients
  - 8 beard transplantation procedures
- Total estimated graft count: ~4,750,000
- Mean grafts per procedure: 3,800
- Median grafts per procedure: 3,600
- **Range:** 1,800 5,950 grafts
- Donor harvesting method: 100% FUE
- Implantation technique distribution:
  - Slit: 65%
  - o DHI: 20%
  - Sapphire: 15%
- Punch diameter range: 0.80 0.85 mm (patient-specific, sometimes combined)
- Slit / channel size: approximately 0.6 mm
- All procedures are completed in a single day.

• Estimated graft survival rate: 98.2%

• Patient satisfaction score: 9.8 / 10 (global average)

• Smoking patients: approximately 1% of the cohort

#### Complication profile:

Simple infection: ~0.5% (1 in 200 patients)

• Folliculitis: ~0.3%

Clinically significant edema: ~10%

 Localized necrosis: 0.01% (1 in 10,000), very limited areas, managed and controlled

Persistent shock loss after regrowth: 0.05% (0.5 in 1,000)

• Temporary sensory changes / prolonged sensitivity: ~10%

Single-use disposables, high-level sterilization of all surgical sets and continuous intraoperative monitoring by an anesthesiologist underpin Hair of Istanbul's safety profile.

## 1. SCOPE AND METHODOLOGY

This report is a **retrospective**, **aggregated data analysis** of Hair of Istanbul's clinical activity between 01 January 2025 and 06 December 2025, including:

- Hair transplantation
- Beard transplantation
- Revision procedures (both internal and external referrals)

#### Data sources:

- Internal clinical software and procedure logs
- Doctor notes and operative reports
- Follow-up visits, standardized photography and measurement records

All data are presented in **aggregated form**. No personal identifiers (names, contact details, identifiable facial images) are included. The purpose is to:

- Document Hair of Istanbul's scientific and clinical approach
- Share an overview of outcomes and safety performance
- Demonstrate transparency in complication and revision management

This report is not designed to give individual treatment advice but to summarize clinic-level performance.

## 2. PATIENT PROFILE

## 2.1 Age Distribution

The 2025 cohort is predominantly composed of young adult and middle-aged male patients.

Majority age group: 25–34 years

• Secondary cluster: 35-44 years

Smaller proportion: 18–24 and ≥45 years

Overall, the mean patient age lies within the **late twenties to mid-thirties**, consistent with typical androgenetic alopecia patterns and international hair transplantation demand.

#### 2.2 Gender Distribution

• Total patients: 1,250

• Female patients: 8

• Male patients: 1,242

### Proportions:

• Male: 99.4%

• Female: 0.6%

This confirms that the clinical practice is highly male-dominated, with a small but relevant female segment.

## 2.3 Geographic Distribution

Self-reported origin and referral patterns demonstrate a strongly international patient base:

• United Kingdom: **40**%

• United States: 20%

• Türkiye: **5**%

• Other European countries (combined): 35%

Hair of Istanbul therefore serves primarily an international audience, with particularly strong links to the UK, US and wider European markets.

## 2.4 Revision and Previous Surgery

Based on 2025 data:

- Patients with previous transplantation at other clinics, treated at Hair of Istanbul for revision / correction: 185
- Hair of Istanbul patients undergoing planned second sessions: 124
- Internal revision / touch-up procedures at Hair of Istanbul: 6

Relative to 1,250 total procedures:

External revision patients: 14.8%

Planned second sessions: 9.9%

• Internal revision: 0.5%

Hair of Istanbul functions both as a primary hair transplantation center and as a referral center for complex or unsatisfactory cases from other clinics.

## 2.5 Smoking Status

Patients who smoke: approximately 1%

Non-smokers: approximately 99%

Given the known impact of smoking on healing and graft survival, this low smoking rate suggests effective pre-operative counselling and/or self-selection among patients.

## 3. SURGICAL APPROACH AND TECHNICAL PROTOCOLS

## 3.1 Donor Harvesting Technique

- Donor harvesting is performed exclusively via FUE (Follicular Unit Extraction)
  in 100% of cases.
- Punch diameters are adjusted to hair shaft thickness, curl, donor density and scarring risk.

#### Punch diameter range: 0.80 - 0.85 mm

• In some patients, more than one punch size may be used in different donor zones to optimize quality and minimize transection.

## 3.2 Implantation Technique Distribution

During the reporting period, the following implantation techniques were employed:

• Slit Technique: 65%

• DHI (Direct Hair Implantation): 20%

• Sapphire Technique: 15%

In approximately 20% of patients, a mixed approach was used – for example:

- High-definition, high-density work in the frontal hairline with DHI
- Coverage and blending in mid-scalp or crown with slit or sapphire tools

This flexibility allows Hair of Istanbul to tailor technique choice to anatomical region, density goals and donor/recipient characteristics.

## 3.3 Channel Creation and Slit Dimensions

• Average slit / channel size: ~0.6 mm

This dimension supports:

- · Natural angulation and direction of the hair
- High-density placement where indicated
- Minimization of tissue trauma and postoperative scarring

#### 3.4 Graft Preservation Protocol

- All grafts are stored in **isotonic solution** during the procedure.
- Average out-of-body time for grafts: **3–4 hours**
- Storage temperature is maintained between 0–5°C

The purpose of this protocol is to:

- Slow metabolic activity
- Preserve cellular integrity
- Reduce the risk of ischemic damage and maximize graft survival

#### 3.5 Session Structure and Duration

- All procedures are completed within a single day.
- Even for patients scheduled for two-stage plans, each stage is structured as a full-day, independent procedure.

### 4. CLINICAL WORKFLOW AND SAFETY

## **4.1 Pre-Operative Assessment**

Each patient undergoes a structured pre-operative process that typically includes:

- Comprehensive medical history (past illnesses, medications, allergies, prior surgeries)
- Physical examination, with focused scalp and donor area evaluation
- · Hair loss pattern assessment and realistic goal-setting
- Photographic documentation
- Where indicated, baseline laboratory tests and/or cardiology consultation

Indications, limitations, realistic expectations and potential risks are discussed in detail with every patient before scheduling.

#### 4.2 Anesthesia and Sedation

• Local anesthesia is applied in all patients.

- **Sedation** may be used on a case-by-case basis, depending on:
  - Patient preference
  - Medical fitness
  - Approval by the anesthesiologist

Sedation is primarily employed to improve comfort during local anesthetic injections. Final sedation decisions are based on standard risk assessment and ASA classification.

## 4.3 Intraoperative Monitoring

- Each patient is continuously monitored throughout the procedure.
- The anesthesiologist supervises:
  - Heart rate
  - Blood pressure
  - Oxygen saturation
  - Clinical status and comfort

This continuous monitoring allows early detection and management of any hemodynamic or anesthetic-related issues.

#### 4.4 Sterilization and Sterile Field Protocols

- All consumables are single-use only.
- Surgical sets are sterilized to high standards for every patient.
- Sterilization is one of the **highest priorities** within the clinic's safety model.
- Sterilization devices undergo **regular monthly maintenance** and quality checks, which are logged.

## 4.5 Emergency Preparedness

Although hair transplantation is a micro-surgical outpatient procedure with a very low complication rate, Hair of Istanbul:

- Implements emergency procedures aligned with Ministry of Health and regulatory requirements.
- Maintains readily available emergency equipment and medications for allergic reactions, syncopal events and other rare but possible complications.
- Trains staff in recognition and management of emergency scenarios.

When executed with proper preparation, skilled medical personnel and protocol adherence, the estimated need for acute emergency intervention remains **well below one in a thousand cases**.

## 5. SURGICAL VOLUME AND GRAFT PROFILE

#### **5.1 Procedural Volume**

Within the reporting period:

• Total procedures: 1,250

 Including primary hair transplantation, beard transplantation, revision procedures and planned second sessions.

## **5.2 Graft Counts**

• Total estimated graft count: ~4,750,000

• Mean grafts per procedure: 3,800

• Median grafts per procedure: 3,600

• Minimum: 1,800 grafts

• Maximum: 5,950 grafts

This range reflects a spectrum from limited recession and smaller Norwood stages to extensive hair loss patterns requiring higher graft numbers.

#### 5.3 Combined Procedures

- Approximately 8 patients underwent combined procedures (e.g., hair + beard, hair + moustache, or eyebrow work).
- 8 dedicated beard transplantation procedures were recorded in the period.

## 6. OUTCOMES, DENSITY AND GRAFT SURVIVAL

## 6.1 Follow-Up Model

- All patients are enrolled in a structured monthly follow-up program after surgery.
- Follow-up includes:
  - Clinical evaluations
  - Standardized photography
  - Where appropriate, trichoscopic examination
  - Al-assisted measurements in selected cases

This allows Hair of Istanbul to monitor:

- Healing
- Density progression
- Graft survival
- Donor area recovery

over time.

## **6.2 Density Assessment**

Density is evaluated using a combination of:

- Trichoscopic measurements
- Manual counts in representative scalp regions
- Standardized before-and-after photographs
- Al-assisted density analysis where applicable

Given the variability in baseline density, area size, Norwood class and individual plans, density improvements are interpreted at patient and zone level rather than reduced to a single global figure in this report.

#### 6.3 Graft Survival

For patients with at least 12 months of follow-up and adequate documentation:

• The estimated graft survival rate is approximately 98.2%.

This reflects the composite impact of:

- Careful donor harvesting
- · Optimal punch size and angulation
- Controlled graft storage temperature and duration
- Proper channel creation
- · Gentle implantation
- Patient adherence to post-operative instructions

#### 6.4 Patient Satisfaction

Patient satisfaction is captured via internal surveys and digital feedback using a 10-point scale:

Global average patient satisfaction score: 9.8 / 10

This score integrates evaluation of:

- Aesthetic outcome
- Naturalness and density
- Perioperative experience
- Communication with staff
- Post-operative support and follow-up

## 7. COMPLICATIONS AND REVISIONS

## 7.1 Definition and Recording

In 2025, Hair of Istanbul systematically recorded:

- Infectious events
- Allergic or inflammatory reactions

- Folliculitis
- Clinically significant edema
- Necrosis (if any)
- Persistent shock loss
- Longer-lasting sensory changes

Minor erythema, limited swelling and expected early shock shedding were considered part of the **normal post-operative course** and not classified as complications unless prolonged or clinically meaningful.

## 7.2 Complication Profile (Approximate Rates)

#### • Simple infection:

~0.5% (approximately 1 in 200 patients)

#### Folliculitis:

~0.3%

#### Clinically relevant edema:

 ~10% of patients experience noticeable edema, which is self-limited in the vast majority of cases.

#### • Bleeding / hematoma:

 Mild bleeding or small hematomas may occur immediately after the procedure or the following day and are typically self-limiting with proper care.

#### • Localized necrosis:

 ~0.01% (1 in 10,000), small and anatomically restricted areas, managed with close follow-up and local care.

#### Shock loss:

 Immediate post-operative shock shedding in the transplanted area is expected and occurs in almost all patients.  After regrowth and stabilization, persistent shock loss is observed in approximately 0.05% of cases (0.5 in 1,000 patients).

#### Sensory changes / prolonged sensitivity:

 About 10% of patients experience temporary sensory alterations or sensitivity, which generally improve spontaneously over time.

## 7.3 Revisions and Touch-Ups

- Internal revision / touch-up procedures: 6
- Internal revision rate: 0.5%

Planned second sessions (124 patients) are **not** classified as revisions; they are part of a deliberate, staged strategy to build density or extend coverage in appropriate candidates.

## 7.4 Complaint and Expectation Management

Hair of Istanbul follows a structured expectation and complaint management process:

- 1. Before surgery, each patient is explicitly informed about donor capacity, recipient area size and realistic achievable density.
- 2. Visual references and case explanations are used to ground expectations.
- 3. Any post-operative concerns are addressed through transparent communication and clinical review.
- 4. When indicated, additional interventions such as density-focused second sessions or corrective work are discussed and planned.

## 8. TEAM STRUCTURE AND OPERATING STANDARDS

#### 8.1 Roles of the Doctors

- Plastic Surgeon
  - Designs and oversees the overall surgical plan.
  - Determines the global strategy for donor management and coverage.

 Holds ultimate responsibility for the clinical protocol and outcome standards.

#### Medical Aesthetic Doctor

- Performs channel opening during the procedure.
- Supervises the intraoperative process from a medical perspective.
- Coordinates the surgical team during implantation to ensure consistency and quality.

#### Anesthesiologist

- Ensures patient safety and comfort throughout the procedure.
- Manages local anesthesia and sedation where appropriate.
- Conducts continuous monitoring and responds to any anesthesia-related issues.

#### 8.2 Team Size

- Hair of Istanbul operates with a multidisciplinary team of approximately 60 professionals, including:
  - Doctors
  - Nurses
  - Surgical technicians
  - Patient coordinators
  - Administrative and support staff

## 8.3 Training and Standardization

- A monthly internal review meeting is held under the theme "What did we do this month?".
- Complications, challenging cases and improvement opportunities are reviewed.
- Successful practices are identified and standardized across the team.

 New staff members undergo shadowing and structured training to align with clinic protocols and quality expectations.

## 9. DEVICES, CONSUMABLES AND STERILIZATION (APPENDIX)

- Motor and punch systems, as well as implanter brands and models, are not publicly disclosed but are selected according to international standards and performance.
- All grafts are held in **isotonic solution** during the procedure.
- All sterilization equipment conforms to current standards and undergoes regular monthly maintenance and calibration.

The overarching principle is to combine high-quality devices with strict sterilization and single-use consumables to minimize infection risk and optimize long-term outcomes.

## 10. AI-ASSISTED ANALYSIS SYSTEM

Hair of Istanbul utilizes a proprietary, clinic-specific **Al-assisted hair analysis system** (name not disclosed publicly).

In 2025:

• The system was used in **more than 2,000 analyses**, including multiple time points per selected patients.

The AI system measures:

- Donor density
- Hair thickness
- Scalp coverage in different regions
- Hairline design parameters and geometric relationships

Key characteristics:

Average analysis time: ~3 minutes

- The AI output is always cross-checked against doctor-performed assessments.
- Final treatment decisions are never automated; they remain fully under medical control.

The system's role is to support:

- Objective baseline documentation
- Better surgical planning
- More consistent and quantifiable follow-up.

### 11. LEGAL AND ETHICAL NOTICE

- All data presented in this report are aggregated and anonymized. No information that could personally identify individual patients is included.
- Photo and video materials used by Hair of Istanbul are obtained only after appropriate **patient consent**, in accordance with the requirements of relevant health and data protection authorities.
- This report is intended solely for informational and scientific transparency purposes.
  - It does not replace individual medical consultation, diagnosis or treatment planning.
  - Treatment decisions must always be based on individual clinical evaluation by a qualified physician.

## 12. CONCLUSION

In the reporting period of 01 January 2025 – 06 December 2025, Hair of Istanbul has demonstrated:

- High surgical volume with 1,250 procedures
- A mean graft count of 3,800 and estimated graft survival of 98.2%
- A very high patient satisfaction score of 9.8 / 10

- Low complication and revision rates within the context of micro-surgical hair restoration
- Robust safety, anesthesia, monitoring and sterilization protocols
- Integration of a proprietary Al-assisted analysis system into planning and follow-up
- A consistently international patient base, particularly from the UK, US and wider Europe

This Annual Clinical Report documents Hair of Istanbul's commitment to:

- Evidence-based practice
- Donor-preserving strategies
- Natural and dense aesthetic outcomes
- Patient safety and transparency

and positions the clinic as a scientific and clinical reference center in modern hair transplantation.