

Japan **S**urgical **T**raining and **E**ducation **P**roject for Safe and Secure **TEES**: **STEP-TEES**

WHY NOW

- Japanese national insurance coverage (K319-2) since 2022 accelerated TEES adoption.
- Systematic training remains limited.
- “TEES-native” surgeons need informed selection among TEES, MES and exoscopic surgery.

OBJECTIVE

Establish a nationwide standardized TEES training program to improve endoscopic middle ear anatomy knowledge and surgical skills for safe and appropriate TEES.

Training = Lectures + Hands-on

Pilot centers: Yamagata University • Osaka Metropolitan University • University of Occupational and Environmental Health

Five modules integrate endoscopic anatomy with surgical skills

Hands-on training consists of Modules 01–05 using cadaveric specimens or temporal bone models. Endoscopic middle ear anatomy is reinforced throughout Modules 01–05.

01

Endoscopic anatomy

- Safe 0°/30° scope control
- Systematic middle-ear survey
- Key landmarks and ventilation pathways

02

Posterior EAC enlargement

- Expose the posterior tympanum
- Protect FN, chorda tympani and stapes
- Use angled scopes and curved instruments

03

Non-powered atticotomy

- Remove the lateral attic wall
- Protect the ossicular chain
- Define the required bone-removal extent

04

Powered TEES atticoantrotomy

- Safely disarticulate the I–S joint
- Define drilling extent
- Apply the underwater technique

05

Ossicular removal & anterior ventilation

- Remove the incus and malleus head
- Confirm the tegmen and mastoid antrum
- Identify the supratubal recess and anterior pathway

Modules 01–05 are mandatory and follow a stepwise progression from visualization to bone work and ventilation assessment. (Ossiculoplasty and scutumplasty are optional.)

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Three time points turn training into evidence

NATIONAL SCALE-UP

3 pilot institutions → additional standardized sites → nationwide scale-up

PRE-TRAINING

Baseline
TEES/MES case volume
Endoscopic anatomy knowledge
SACL for Modules 01–05

SACL: self-assessment of confidence level

IMMEDIATE POST

Acquisition
Anatomy knowledge gained
Procedural confidence (SACL)
Course-level feedback

6-MONTH FOLLOW-UP

Retention & transfer
TEES/MES volume during follow-up
Anatomy knowledge retained
SACL for Modules 01–05

Collaborative evaluation links standardized training to knowledge acquisition, skill retention and clinical practice.

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