

Trial order

Record ID

{[record_id] text}

Study Arm:

{[studyarm] radio Required}

☐ {1} Resident

☐ {2} Expert

Baseline trials order:
{[trial_order] dropdown Required}

- ☐ {1} ABCDE
- ☐ {2} ABCED
- ☐ {3} ABDCE
- ☐ {4} ABDEC
- ☐ {5} ABECD
- ☐ {6} ABEDC
- ☐ {7} ACBDE
- ☐ {8} ACBED
- ☐ {9} ACDBE
- ☐ {10} ACDEB
- ☐ {11} ACEBD
- ☐ {12} ACEDB
- ☐ {13} ADBCE
- ☐ {14} ADBEC
- ☐ {15} ADCBE
- ☐ {16} ADCEB
- ☐ {17} ADEBC
- ☐ {18} ADECB
- ☐ {19} AEBCD
- ☐ {20} AEBDC
- ☐ {21} AECBD
- ☐ {22} AECDB
- ☐ {23} AEDBC
- ☐ {24} AEDCB
- ☐ {25} BCDEA
- ☐ {26} BCEDA
- ☐ {27} BDCEA
- ☐ {28} BDECA
- ☐ {29} BECDA
- ☐ {30} BEDCA
- ☐ {31} CBDEA
- ☐ {32} CBEDA
- ☐ {33} CDBEA
- ☐ {34} CDEBA
- ☐ {35} CEBDA
- ☐ {36} CEDBA
- ☐ {37} DBCEA
- ☐ {38} DBECA
- ☐ {39} DCBEA
- ☐ {40} DCEBA
- ☐ {41} DEBCA
- ☐ {42} DECBA
- ☐ {43} EBCDA
- ☐ {44} EBDCA
- ☐ {45} ECBDA
- ☐ {46} ECDBA
- ☐ {47} EDBCA
- ☐ {48} EDCBA
- ☐ {49} CDEAB
- ☐ {50} CEDAB
- ☐ {51} DCEAB
- ☐ {52} DECAB
- ☐ {53} ECDAB
- ☐ {54} EDCAB
- ☐ {55} BDEAC
- ☐ {56} BEDAC
- ☐ {57} DBEAC
- ☐ {58} DEBAC
- ☐ {59} EBDAC
- ☐ {60} EDBAC
- ☐ {61} BCEAD
- ☐ {62} BECAD
- ☐ {63} CBEAD
- ☐ {64} CEBAD
- ☐ {65} EBCAD
- ☐ {66} ECBAD
- ☐ {67} BCDAE
- ☐ {68} BDCAE
- ☐ {69} CBDAE

- ☐ {70} CDBAE
- ☐ {71} DBCAE
- ☐ {72} DCBAE
- ☐ {73} DEABC
- ☐ {74} EDABC
- ☐ {75} CEABD
- ☐ {76} ECABD
- ☐ {77} CDABE
- ☐ {78} DCABE
- ☐ {79} DEACB
- ☐ {80} EDACB
- ☐ {81} BEACD
- ☐ {82} EBACD
- ☐ {83} BDACE
- ☐ {84} DBACE
- ☐ {85} CEADB
- ☐ {86} ECADB
- ☐ {87} BEADC
- ☐ {88} EBADC
- ☐ {89} BCADE
- ☐ {90} CBADE
- ☐ {91} CDAEB
- ☐ {92} DCAEB
- ☐ {93} BDAEC
- ☐ {94} DBAEC
- ☐ {95} BCAED
- ☐ {96} CBAED
- ☐ {97} EABCD
- ☐ {98} DABCE
- ☐ {99} EABDC
- ☐ {100} CABDE
- ☐ {101} DABEC
- ☐ {102} CABED
- ☐ {103} EACBD
- ☐ {104} DACBE
- ☐ {105} EACDB
- ☐ {106} BACDE
- ☐ {107} DACEB
- ☐ {108} BACED
- ☐ {109} EADBC
- ☐ {110} CADBE
- ☐ {111} EADCB
- ☐ {112} BADCE
- ☐ {113} CADEB
- ☐ {114} BADEC
- ☐ {115} DAEBC
- ☐ {116} CAEBE
- ☐ {117} DAECB
- ☐ {118} BAECD
- ☐ {119} CAEDB
- ☐ {120} BAEDC
- ((Anatomy))

Guidance-based trials order:
 {[trial_order_2] dropdown Required}

- ☐ {1} A-1 B-2 C-3 D-4 E-5
- ☐ {2} A-2 B-3 C-4 D-5 E-1
- ☐ {3} A-3 B-4 C-5 D-1 E-2
- ☐ {4} A-4 B-5 C-1 D-2 E-3
- ☐ {5} A-5 B-1 C-2 D-3 E-4
- ((Anatomy-Condition))

Guidance-base Trials (actual order & date completed):
 {[trial_order_gb2] textarea}

Demographics & Experience Questionnaire

Sex:

{[sex] radio Required}

- ☐ {1} Female
☐ {2} Male
☐ {3} Other

Age (years):

{[age] text (integer) Required}

Level of training:

{[level_training] radio Required}

- ☐ {0} Med student/undergrad
☐ {1} PGY1
☐ {2} PGY2
☐ {3} PGY3
☐ {4} 1st yr T32
☐ {5} 2nd yr T32
☐ {6} PGY4
☐ {7} PGY4 (T32)
☐ {8} PGY5
☐ {9} PGY5 (T32)
☐ {10} PGY6 (T32)
☐ {11} Fellow (1st yr)
☐ {12} Fellow (2nd yr)
☐ {13} Attending (< 2 yr)
☐ {14} Attending (2-5 yr)
☐ {15} Attending (>5 yr)

Number of prior cortical mastoidectomy cases:

{[numb_mastoids] radio Required}

- ☐ {0} 0
☐ {1} 1-5
☐ {2} 6-10
☐ {3} 11-15
☐ {4} 16-20
☐ {5} 21-50
☐ {6} 51-100
☐ {7} >100

Dominant hand:

{[hand_dom] radio Required}

- ☐ {1} Right
☐ {2} Left
☐ {3} Both

Height (inches):

{[height] text (float) Required}

((total inches))

Surgical glove size (if single-gloved):

{[glove_size] radio Required}

- ☐ {1} 5
☐ {2} 5 1/2
☐ {3} 6
☐ {4} 6 1/2
☐ {5} 7
☐ {6} 7 1/2
☐ {7} 8
☐ {8} 8 1/2

Do you have any experience using virtual reality?

{[vr_experience] yesno Required}

- ☐ Yes
☐ No

Details:

{[vr_details] textarea Required}

{Branching logic (show if): [vr_experience] = '1'}

Do you have any experience playing video games?
{[videogame_experience] yesno Required}

☐ Yes
☐ No

Details:

{[videogames_details] textarea Required}

{Branching logic (show if): [videogame_experience] =
'1'}

TB Sim Trial OSATS

Trial #:

{[trialid_1] calc Required}

Evaluator initials:

{[attendingeval_initials] text Required}

Task based checklist:Initial bone cuts: placement of superior cut
{[tbc1] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Initial bone cuts: placement of canal cut
{[tbc2] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Defining anatomic limits: identification and
definition of tegmen
{[tbc3] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Defining anatomic limits: sharpen posterior EAC cortex
{[tbc4] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Defining anatomic limits: define sigmoid sinus and
sinodural angle
{[tbc5] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Open antrum: deepen dissection at sinodural angle
{[tbc6] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Open antrum: open antrum from posterior to anterior
{[tbc7] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Open antrum: atraumatic exposure of short process of incus {[tbc8] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Digastric dissection: define cephalic edge of digastric muscle {[tbc9] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Digastric dissection: follow to SMF {[tbc10] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Thin posterior EAC cortex (translucent): view posterior EAC en face {[tbc11] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Thin posterior EAC cortex (translucent): use side/front of appropriate bur {[tbc12] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
--	--

Thin posterior EAC cortex (translucent): saucerization {[tbc13] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Open facial recess: even removal of infralabyrinthine bone {[tbc14] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Open facial recess: medial thinning of EAC cortex {[tbc15] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Open facial recess: identify and preserve VII and chorda tympani {[tbc16] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Open facial recess: identify ME anatomy {[tbc17] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Open facial recess: decompress facial nerve to SMF {[tbc18] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Posterior atticotomy: thin superior EAC cortex {[tbc19] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Posterior atticotomy: thin anterior tegmen {[tbc20] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Posterior atticotomy: remove intervening bone {[tbc21] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Posterior atticotomy: identify epitympanic anatomy to supratubal recess {[tbc22] radio Required}	<input type="radio"/> {1} 1 <input type="radio"/> {2} 2 <input type="radio"/> {3} 3 <input type="radio"/> {4} 4 <input type="radio"/> {5} 5 <input type="radio"/> {99} NA
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Global rating scale

Understanding of indications/objectives for surgery
{[grs1] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Interpretation of preoperative tests
{[grs2] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Use of otologic skills
{[grs3] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Knowledge of instruments:
{[grs4] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Use of microscope:
{[grs5] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Respect or surgical limits
{[grs6] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Time and motion
{[grs7] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Knowledge of specific procedure
{[grs8] radio Required}

- ☐ {1} 1
☐ {2} 2
☐ {3} 3
☐ {4} 4
☐ {5} 5
☐ {99} NA

Flow of operation	<input type="radio"/> {1} 1
{[grs9] radio Required}	<input type="radio"/> {2} 2
	<input type="radio"/> {3} 3
	<input type="radio"/> {4} 4
	<input type="radio"/> {5} 5
	<input type="radio"/> {99} NA

Overall surgical performance	<input type="radio"/> {1} 1
{[grs10] radio Required}	<input type="radio"/> {2} 2
	<input type="radio"/> {3} 3
	<input type="radio"/> {4} 4
	<input type="radio"/> {5} 5
	<input type="radio"/> {99} NA

NASA-TLX Survey

Trial #:

{[trialid_2] calc Required}

HDF5 Associated Trial

{[hdf5_trial] text (integer)}

Guidance Method

{[guid_method] radio}

☐ {1} baseline☐ {2} visual☐ {3} audio☐ {4} haptic

Anatomy Letter

{[anatomy] text (alpha_only)}

How mentally demanding was the task?

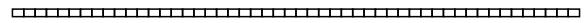
{[mental] slider (number Max: 20) Required}

Very high, {Very

low | | Very

high}

Very low



(Place a mark on the scale above)

How physically demanding was the task?

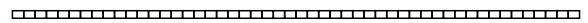
{[physical] slider (number Max: 20) Required}

Very high, {Very

low | | Very

high}

Very low



(Place a mark on the scale above)

How hurried or rushed was the pace of the task?

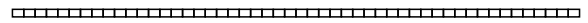
{[temporal] slider (number Max: 20) Required}

Very high, {Very

low | | Very

high}

Very low



(Place a mark on the scale above)

How successful were you in accomplishing what you were asked to do?

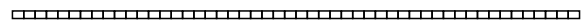
{[performance] slider (number Max: 20) Required}

Very high, {Very

low | | Very

high}

Very low



(Place a mark on the scale above)

How hard did you have to work to accomplish your level of performance?

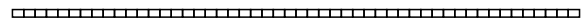
{[effort] slider (number Max: 20) Required}

Very high, {Very

low | | Very

high}

Very low



(Place a mark on the scale above)

How insecure, discouraged, irritated, stressed and annoyed were you?

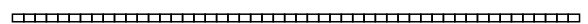
{[frustration] slider (number Max: 20) Required}

Very high, {Very

low | | Very

high}

Very low



(Place a mark on the scale above)