

# Knee MRI Bone Segmentation + Meniscus Sizing Report (Research Use Only)

|                |                                                                                    |
|----------------|------------------------------------------------------------------------------------|
| Run timestamp  | 2026-04-12T17:40:53                                                                |
| Source input   | /var/folders/_x/781qph4s5xzdxxfjms4s42tm0000gn/T/mat_series_fp5b4_x0               |
| Run directory  | /Users/abhichatterjee/MAT_Planner_Data/outputs/run_20260412_173639_231786_dd7082e4 |
| Knee side      | left                                                                               |
| Bone mask      | /Users/abhichatterjee/MAT_Planner_Data/outputs/run_20260412_173639_231786_dd7082e4 |
| Femur mask     | /Users/abhichatterjee/MAT_Planner_Data/outputs/run_20260412_173639_231786_dd7082e4 |
| Tibia mask     | /Users/abhichatterjee/MAT_Planner_Data/outputs/run_20260412_173639_231786_dd7082e4 |
| Model registry | /Users/abhichatterjee/MAT_Planner_Data/outputs/run_20260412_173639_231786_dd7082e4 |

## Input Demographics

| Field  | Value |
|--------|-------|
| age    | 62.0  |
| sex    | F     |
| height | 156.5 |
| weight | 75.4  |
| BMI    | 31.0  |

## Predicted Meniscus Dimensions

| Target            | Prediction (mm) | Uncertainty SD (mm) | Ensemble members |
|-------------------|-----------------|---------------------|------------------|
| medial_width_mm   | 8.60            | 0.74                | 10               |
| lateral_width_mm  | 8.19            | 0.75                | 10               |
| medial_length_mm  | 60.64           | 1.18                | 10               |
| lateral_length_mm | 62.43           | 1.10                | 10               |

## Estimated Horn Coordinates (mm)

| Compartment | Anterior horn (x, y, z) | Posterior horn (x, y, z) | Method        | Confidence |
|-------------|-------------------------|--------------------------|---------------|------------|
| medial      | (-62.2, -7.0, -2.8)     | (-66.5, 23.8, -6.6)      | v11_two_stage | 1.000      |
| lateral     | (-80.8, -9.2, 1.8)      | (-85.4, 4.3, -3.8)       | v11_two_stage | 1.000      |

Research-only output. Not for clinical decision-making without independent validation and regulatory review.