



## Femoral Anteversion of Dry Femora

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**Background and objective:** Femoral neck anteversion (FNA) is define as the angle between an imaginary transverse line that reference to bicondylar plane of the distal end of the femur and an imaginary transverse line passing through the center of the femoral head and neck. The FNA has important implication in various corrective osteotomies as well as in arthroplasties . The racial variation is considered as the factor affected the FNA. The objective of this study was to measure the FNA on dried human femora from Thais.

**Methods :** Paired 116 dried femora ( 232 bones) of adult Thais from the bone collection in the Department of Anatomy .The bones had no any gross pathology. The dried femora belonged to 61 men and 55 women. The FNA was measured by Kingsley & Olmsted (KO) method.

**Result :** The mean  $\pm$  SD of the FNA was  $16.21 \pm 5.24$  degrees. The mean  $\pm$  SD of male and female FNA were  $15.83 \pm 5.42$  and  $16.59 \pm 5.42$  degrees respectively. The respected averaged left and right side female anteversion showed 0.47 and 1.06 degree more anteversion than left and right side male anteversion without statistical significant ( $p > 0.05$ ). Retroversion was observed in 32 bones (27.59%).

**Conclusion :** In treating the patient with femoral neck problems, their FNA should be evaluated preoperatively in the nonoperated side to ensure the anteversion which allows the excellence result for the patient.

**Key words:** Femoral neck anteversion, dried human femora, corrective osteotomies, Arthroplasties