

TABLE 1. Distribution and Incidence Rate of Sesamoid Bones in the Forefoot of Adults (n = 8,207)

| Sesamoid | Left Feet | | | | | Right Feet | | | | | | |
|----------|------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------------|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------------|
| | MTP: (Hallux) | MT P: (2nd toe) | MT P: (3rd toe) | MT P: (4th toe) | MT P: (5th toe) | IP: (Hal- lux) | MT P: (Hal- lux) | MT P: (2nd toe) | MT P: (3rd toe) | MT P: (4th toe) | MT P: (5th toe) | IP: (Hal- lux) |
| Male | 2586 | 66 | 10 | 21 | 243 | 1365 | 2569 | 75 | 8 | 14 | 232 | 1465 |
| Female | 1575 | 54 | 10 | 10 | 135 | 1046 | 1474 | 58 | 4 | 12 | 124 | 984 |
| Total | 4,161 (99.95) | 120 (2.88) | 20 (0.48) | 31 (0.74) | 378 (9.08) | 2,411 (57.91) | 4,043 (99.98) | 133 (3.29) | 12 (0.30) | 26 (0.64) | 356 (8.80) | 2,449 (60.56) |

Notes: MTP, metatarsophalangeal; IP, interphalangeal.

TABLE 2. Classification of Sesamoid Bones at the Hallux Metatarsophalangeal Joint

| Type | Description | Medial Sesamoid n(%) | Lateral Sesamoid n (%) | Bilateral Sesamoid n (%) |
|------|---|----------------------------|------------------------------|--------------------------------|
| I | One ossification center and hypoplastic sesamoid | 428 (5.22) | 6 (0.07) | --- |
| II | Two ossification centers | 508 (6.19) | 22 (0.27) | 17 (0.21) |
| III | ≥ 3 ossification centers | 10 (0.12) | --- | 1 (0.01) |

TABLE 3. Age of Onset of Ossification of the Sesamoid Bones in the Forefoot

| Sites | Males; age (years) | Females; age(years) |
|----------------|--------------------|---------------------|
| MTP: (Hallux) | 8 | 8 |
| MTP: (2nd toe) | 12 | 10 |
| MTP: (3rd toe) | 21 | 27 |
| MTP: (4th toe) | 20 | 28 |
| MTP:(5th toe) | 15 | 12 |
| IP: (Hallux) | 10 | 8 |

Notes: MTP, metatarsophalangeal; IP, interphalangeal.

TABLE 4. Presence/Absence of Ossification of the Hallucal Sesamoid Bones in Boys and Girls (5–17 Years)

| Age, years (Count) | Boys | | Girls | |
|--------------------|---------|--------|---------|--------|
| | Present | Absent | Present | Absent |
| 5 (n = 24) | -- | 15 | -- | 9 |
| 6 (n = 24) | -- | 17 | -- | 7 |
| 7 (n = 27) | -- | 19 | -- | 8 |
| 8 (n = 24) | 1 | 16 | 3 | 4 |
| 9 (n = 27) | 5 | 6 | 12 | 4 |
| 10 (n = 33) | 14 | 4 | 12 | 3 |
| 11 (n = 41) | 9 | 7 | 23 | 2 |
| 12 (n = 48) | 25 | 8 | 15 | -- |
| 13 (n = 36) | 21 | -- | 15 | -- |
| 14 (n = 43) | 31 | -- | 12 | -- |
| 15 (n = 41) | 31 | -- | 10 | -- |
| 16 (n = 66) | 50 | -- | 16 | -- |
| 17 (n = 75) | 58 | -- | 17 | -- |

TABLE 5. Incidence Rate and Distribution of Sesamoid Bones: Comparison to Previously Published Data

| Site | Pfitzner ^a (1892) | Bizarro (1921)[20] | Msamati &Igbigbi (2001)[10] | Dharapet al. (2007)[6] | Coskun et al. (2009)[1] | Sun et al. (present study) |
|-------------------|---------------------------------|-----------------------|-----------------------------------|------------------------------|-------------------------------|----------------------------------|
| MTP (Hallux) | 100% | 100% | 100% | 100% | 100% | 99.96% |
| MTP: (2nd toe) | 1.6% | 1% | --- | 2.1% | 0.4% | 3.08% |
| MTP: (3rd toe) | --- | 1% | --- | 0.6% | 0.2% | 0.39% |
| MTP: (4th toe) | --- | 2% | --- | 0.6% | 0.1% | 0.69% |
| MTP: (5th toe) | 5.5–6.2% | 10% | 10.8% | 12.1% | 4.3% | 8.94% |
| IP: (Hallux) | 50.6% | 5% | --- | 3.9% | 2% | 59.22% |
| Population | European | British | Malawian | Bahrainis | Turkish | Chinese |
| No. of feet | 385 | 100 | 126 | 336 | 984 | 8,207 |

Notes: MTP, metatarsophalangeal joint; IP, interphalangeal joint; ^a adapted from Bizarro (1921) and Yammine(2014).