

PATHOLOGY IN THE ADULT

The forefoot

PATHOLOGY IN THE ADULT The forefoot

Hallux valgus Hallux valgus is deviation of the big toe away from the midline, i.e. towards the lesser toes, and is usually associated with a bunion, a swelling made up of both bone and bursa on the medial aspect of the first metatarsal head (Figure 41.2). It is a common condition that affects women more than men, and that is often bilateral. It is believed that the tendency to hallux valgus is inherited and that fully enclosed shoes accelerate the development of the condition, although not all agree. With increasing deformity the first ray becomes dysfunctional and elevated, and overload of the second metatarsophalangeal (MTP) joint often results in pain, swelling and eventually plantar plate disruption and dislocation. This can be associated with a prominent callosity beneath the second MTP joint and eventually hammering of the second toe. Hallux valgus includes a wider toe box and pressure relief. Surgical intervention is commonly offered, but has a 10% rate of dissatisfaction. For mild deformities a distal osteotomy (e.g. chevron) is usually adequate. For moderate deformities the surgeon is more likely to use a scarf (Figure 41.3) or Ludloff, or a basal (proximal chevron or crescentic) osteotomy . Severe deformities can be corrected by scarf and basal osteotomies but sometimes a fusion of the first TMT joint (modified Lapidus) or a first MTP joint fusion can be effective and is the preferred option for hypermobile or unstable TMT1 joint deformities. Minimally invasive techniques are developing and are widespread, especially in Europe, but there are few peer-reviewed series of outcomes from the UK and it has not become mainstream. Basal osteotomies and fusions have a higher risk of abnormal elevation or depression of the rays, resulting in overloading of the rest of the forefoot. However, they do allow a massive correction. They are best stabilised using plates. Operations such as a Keller's excision arthroplasty , where the proximal third of the proximal phalanx is excised, serve to defunction the toe and sesamoids and are reserved for low-demand, high-risk patients in whom there is a high risk that healing of an osteotomy might fail. The complications of bunion surgery are infection, cutaneous nerve damage, recurrence or overcorrection of deformity , stiffness and overload of the second MTP joint (transfer lesion); 10% of patients have significant reservations and 20% mild reservations about their outcome. Occasionally patients develop early arthritis following surgery and require revision to fusion.

(b) Figure 41.3 Pre- (a) and postoperative (b) radiographs of a scarf osteotomy. (b) Figure 41.4 Clinical (a) and radiographic (b) appearance of hallux rigidus.

PATHOLOGY IN THE ADULT The forefoot

Hallux valgus Hallux valgus is deviation of the big toe away from the midline, i.e. towards the lesser toes, and is usually associated with a bunion, a swelling made up of both bone and bursa on the 41.2). It is medial aspect of the first metatarsal head (Figure a common condition that affects women more than men, and that is often bilateral. It is believed that the tendency to hallux valgus is inherited and that fully enclosed shoes accelerate the development of the condition, although not all agree. With increasing deformity the first ray becomes defunctioned and elevated, and overload of the second metatarsophalangeal (MTP) joint often results in pain, swelling and eventually plantar plate disruption and dislocation. This can . The present with a prominent callosity beneath the second MTP joint and eventually hammering of the second toe. valgus includes a wider Non-operative treatment of hallux v toe box and pressure relief. Surgical intervention is commonly offered, but has a 10% rate of dissatisfaction. For mild deformities a distal osteotomy (e.g. chevron) is usually adequate. For moderate deformities the surgeon is more likely to use a shaft, e.g. scarf (Figure 41.3) or Ludloff, or a basal (proximal chevron or crescentic) osteotomy . Severe deformities can be corrected by shaft and basal osteotomies but sometimes a fusion of the first TMT joint (modified Lapidus) or a first MTP joint fusion can be effective and is the preferred option for hypermobile or unstable TMT1 joint deformities. Minimally invasive techniques are developing and are widespread, especially in Europe, but there are few peer-reviewed series of outcomes from the UK and it has not become mainstream. Basal osteotomies and fusions have a higher risk of abnormal elevation or depression of the rays, resulting in over of the rest of the forefoot. However, they do allow a massive correction. They are best stabilised using plates. Operations such as a Keller's excision arthroplasty, where the proximal third of the proximal phalanx is excised, serve A scarf osteotomy is named after a carpentry term; it is an elongated Z-shaped osteotomy along the metatarsal. Karl Ludloff, 1864–1945, German orthopaedic surgeon. Paul W Lapidus, 1893–1981, Russian-born orthopaedic surgeon, Chief of the first Orthopedic Foot Clinic and Service, Hospital for Joint Diseases, New York, NY, USA. William Lordan Keller, 1874–1959, Head of the Department of Surgery, Walter Reed Hospital, Washington, DC, USA, described this operation in 1904. to defunction the toe and sesamoids and are reserved for low-demand, high-risk patients in whom there is a high risk that healing of an osteotomy might fail. The complications of bunion surgery are infection, cutaneous nerve damage, recurrence or overcorrection of deformity, stiffness and overload of the second MTP joint (transfer lesion); 10% of patients have significant reservations and 20% mild reservations about their outcome. Occasionally patients develop early arthritis following surgery and require revision to fusion. -

(b) Figure 41.3 Pre- (a) and postoperative (b) radiographs of a scarf osteotomy. (b) Figure 41.4 Clinical (a) and radiographic (b) appearance of hallux rigidus.

PATHOLOGY IN THE ADULT The forefoot

Hallux valgus Hallux valgus is deviation of the big toe away from the midline, i.e. towards the lesser toes, and is usually associated with a bunion, a swelling made up of both bone and bursa on the 41.2). It is medial aspect of the first metatarsal head (Figure a common condition that affects women more than men, and that is often bilateral. It is believed that the tendency to hallux valgus is inherited and that fully enclosed shoes accelerate the development of the condition, although not all agree. With increasing deformity the first ray becomes defunctioned and elevated, and

overload of the second metatarso - phalangeal (MTP) joint often results in pain, swelling and eventually plantar plate disruption and dislocation. This can . The present with a prominent callosity beneath the second MTP joint and eventually hammering of the second toe. algus includes a wider Non-operative treatment of hallux v toe box and pressure relief. Surgical intervention is commonly o ff ered, but has a 10% ra te of dissatisfaction. For mild deformities a distal osteotomy (e.g. chevron) is usually adequate. For moderate deformities the surgeon is more likely to use a shaft, e.g. scarf (Figure 41.3) or Ludlo ff , or a basal (proximal chevron or crescentic) osteotomy . Severe deformities can be corrected by shaft and basal osteotomies but sometimes a fusion of the first TMT joint (modified Lapidus) or a first MTP joint fusion can be e ff ective and is the preferred option for hypermobile or unstable TMT1 joint deformities. Minimally invasive techniques are developing and are wide spread, especially in Europe, but there are few peer-reviewed series of outcomes from the UK and it has not become main stream. Basal osteotomies and fusions have a higher risk of abnor mal elevation or depression of the rays, resulting in ov of the rest of the forefoot. However, they do allow a massive correction. The y are best stabilised using plates. Operations such as a Keller's excision arthroplasty , where the proximal third of the proximal phalanx is excised, serve A scarf osteotomy is named after a carpentry term; it is an elongated Z-shaped osteotomy along the metatarsal. Karl Ludlo ff , 1864-1945, German orthopaedic surgeon. Paul W Lapidus , 1893-1981, Russian-born orthopaedic surgeon, Chief of the first Orthopedic Foot Clinic and Service, Hospital for Joint Diseases, New Y ork, NY , USA. William Lordan Keller , 1874-1959, Head of the Department of Surgery , Walter Reed Hospital, Washington, DC, USA, described this operation in 1904. to defunction the toe and sesamoids and are reserved for low-demand, high-risk patients in whom there is a high risk that healing of an osteotomy might fail. The complications of bunion surgery are infection, cuta - neous nerve damage, recurrence or overcorrection of defor - mity , sti ff ness and overload of the second MTP joint (transfer - lesion); 10% of patients have significant reservations and 20% mild reservations about their outcome. Occasionally patients - develop early arthritis following sur gery and require revision to fusion. -

(b) Figure 41.3 Pre- (a) and postoperative (b) radiographs of a scarf osteotomy. (b) Figure 41.4 Clinical (a) and radiographic (b) appearance of hallux rigidus.

Revision #1

Created 2025-12-31 15:16:14 UTC by Omar Ayman

Updated 2025-12-31 15:16:14 UTC by Omar Ayman