

## POSITION STATEMENT

### Cosmetic Foot and Ankle Surgery

#### **Position Statement**

The American Orthopaedic Foot & Ankle Society (AOFAS) does not support foot and ankle surgery where the goal is solely cosmetic or for the purpose of fitting into aesthetically desirable footwear. There are risks in surgery that must be considered when the goal of surgery is to change the outward appearance of the foot for cosmetic reasons or to alter the foot to allow the patient to fit into specialized shoes. The medical literature does not support the practice of cosmetic foot and ankle surgery.

The AOFAS is an international medical society of more than 2,400 orthopaedic surgeons and allied health practitioners who specialize in the diagnosis and treatment of injuries, diseases, and other conditions of the foot and ankle. Through education, research, and advocacy, AOFAS mobilizes our members and the healthcare community to improve patient care.

#### **Background**

The foot and ankle complex is subject to considerable loads during normal day-to-day use. A wide variety of foot morphologies exist, and most permit normal activity without chronic pain. Cosmetic surgery is defined as procedures, techniques, and principles that are entirely focused on enhancing a patient's appearance.<sup>2</sup> Various cosmetic procedures have been proposed for the foot and ankle, and have been widely advertised in various media including the Internet. These include liposuction, toe straightening/shortening, fat-pad injections, and forefoot contouring for the express purpose of altering appearance or fitting into specialized footwear. When symptoms are absent, these procedures lack scientific support in medical literature, and expose patients to potential surgical risks.

#### **Peer Reviewed Publications on Cosmetic Procedures Related to the Foot and Ankle**

##### **1) Liposuction**

There exist no scholarly articles either reporting results or supporting the practice of cosmetic liposuction in the foot.

Cosmetic liposuction for enlarged ankles has been described.<sup>28</sup> Lower extremity liposuction is regarded as technically more challenging and less successful than liposuction in other parts of the body.<sup>1</sup> Additionally, there is specific concern for pigmentation changes, wound complications, chronic pain, nerve injury, and iatrogenic edema.<sup>1, 29</sup> Based on the published medical literature, it remains unclear whether the risks of ankle liposuction are outweighed by benefits.

Notably absent from medical literature is any report on the safety or efficacy of liposuction for enlarged toes.

There are however reports of using liposuction to reduce prominent tissue associated with

surgical flaps. These surgical tissue flaps are placed to provide soft tissue coverage after traumatic injury rather than for cosmetic purposes. Excessive prominence of these tissue flaps may benefit from contouring with liposuction.<sup>19,22</sup>

There are also reports of treating excessive lymphedema with liposuction.<sup>10,14,23,27</sup> This treatment is reserved for patients who have severe and disfiguring swelling that compromises skin integrity and can affect one's ability to fit into even capacious clothing and shoes.

Concerns exist regarding liposuction for lower extremities even in the setting of lymphedema. Return of swelling is common within 6 months.<sup>27</sup>

## **2) Toe deformity**

Correction of hammertoes is a common procedure for symptomatic feet that do not respond to non-operative treatment. Frequently, patients with hammertoes develop painful calluses due to rubbing on the flexed toe joint or pain on the 'ball' of the foot. Symptomatic hammertoes can be successfully treated with surgery. Operative care has been shown to improve pain and function scores.<sup>9, 4</sup> However, corrective toe surgery can be accompanied by complications including non-union, stiffness, swelling, recurrent deformity, persistent pain, and even the rare occurrence of toe necrosis.<sup>9</sup> It remains unclear whether asymptomatic patients can derive sufficient benefit to justify the risks of this operative procedure.

There exists no literature to support operations on toe deformity in an asymptomatic forefoot. The existing medical literature demonstrates benefits only for patients with pain and or some degree of functional limitation prior to surgery.

## **3) Bunion deformity**

Various bunion procedures exist if non-operative treatment is unsuccessful, and any number can be successful in addressing pain or functional limitations.<sup>6, 11, 13, 26</sup>

However, bunion surgery is accompanied by some well documented risks including infection, recurrent deformity, failure of bone healing, and chronic pain.<sup>5, 7, 15, 20</sup>

There exists no evidence to support operating on a bunion deformity in an asymptomatic forefoot. The existing medical literature demonstrates benefits only for patients with pain and or some degree of functional limitation prior to surgery.

## **4) Injectables**

Injection of silicone into the bottom of the foot has been described in diabetic patients at risk for foot ulceration.<sup>3, 24</sup> The goal of this is to augment the padding on the weightbearing surfaces of the foot. This practice has not been investigated in patients for cosmetic purposes, and is not recommended.

There are two small reports of injecting autologous fat into the metatarsal padding with limited pilot data.<sup>12, 18</sup> Additional investigation into safety and efficacy is needed.

## What level of symptoms make surgery worthwhile?

A question remains, what threshold of symptoms exists to justify surgical treatment? <sup>8,16</sup> Unfortunately there is no simple answer that can be applied in all cases. Weighing the morbidity of a procedure versus the severity of the symptoms is the best way to avoid exposing patients to unnecessary risk. For both patients and surgeons, the desire for optimal appearance tests the balance between form and function. Unfortunately, decisions for surgery based primarily upon appearance can result in patient exposure to unnecessary risks.

## Conclusion

An important distinction should be made between cosmesis as a component of surgery and cosmesis as the primary goal. Surgical foot reconstruction does require attention to the end result, and patients are correct in caring about the appearance of the feet. However, the practice of marketing surgical procedures for purely cosmetic reasons should be recognized and discouraged.

Studies have shown that the shape of a foot is a poor predictor of function.<sup>17,21</sup> Operative procedures carry inherent risks which should be considered carefully prior to embarking potentially unnecessary surgery. The AOFAS does not recommend the practice of cosmetic foot and ankle surgery because there lacks medical evidence on safety and efficacy.

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