

Bunion: The non-surgical approach of treatment

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ABSTRACT

Background: The bunion is a common malformation pervaded by progressive lateral deviation of the great toe at the first metatarsophalangeal joint. Sometimes it is painful. Many research article claims that surgery is the only treatment that can get rid of bunions. **Objective:** The objective of this review is to investigate the various non-surgical treatments for the bunion. **Methods:** Pubmed and Google Scholar were searched for relevant information regarding various non-surgical treatments and methods to treat the bunion. **Results:** A total of 11 articles were selected for review which included information about the treatments for the bunion and their importance. **Conclusion:** As surgery for bunions is not adequately restoring the condition of patient and long-term pain often results after surgery, non-surgical treatments for bunions should be more explored and studied for scientifically proven and accepted treatments. Ayurveda and yoga still lack the infallible treatment for the same.

Keywords: Bunion, Hallux valgus, Ayurvedic treatment, Yoga for Bunion.

The bunion is a common malformation pervaded by progressive lateral deviation of the great toe at the first metatarsophalangeal joint. It is usually coupled with a painful overlying soft-tissue prominence [1]. Various studies report various prevalence rates of bunion from 23% in adults aged 18 to 65 years to 35.7% in elderly people aged over 65 years. It is also reported that prevalence is higher in females [2]. This condition gives rise to various health problems such as foot pain, poor balance, gait impairment, immobility, and risk of falling, etc. It also gives rise to nodal osteoarthritis (OA) and pain at the low back, hip, and knee [1]. Bunions are painful but not all the types, even if they are very big. Sometimes bunions cause numbness due to damage of nerves in the big toe. The big toe may face difficulty in movement and may result in hammertoes or claw toes [3].

Factors that may influence the risk of developing a bunion include genetic constitution (heredity), tight shoes can contribute to the development of bunions, shoes with high heels and pointed toes, the person with weak connective tissue, a short Achilles' tendon, short calf muscles, or a joint disease such as rheumatoid arthritis, and splayfoot or flatfoot [3]. An evolutionary perspective for the bones of

human feet claims that evolutionary-based anatomy and mechanisms underlying the natural tendency of humans to develop bunions promote a better understanding of the frequency of its occurrence, behavioral changes to reduce risk, and the development of future therapies [4]. You can find the difference between normal and bunion foot in the figure 1a and figure 1b.

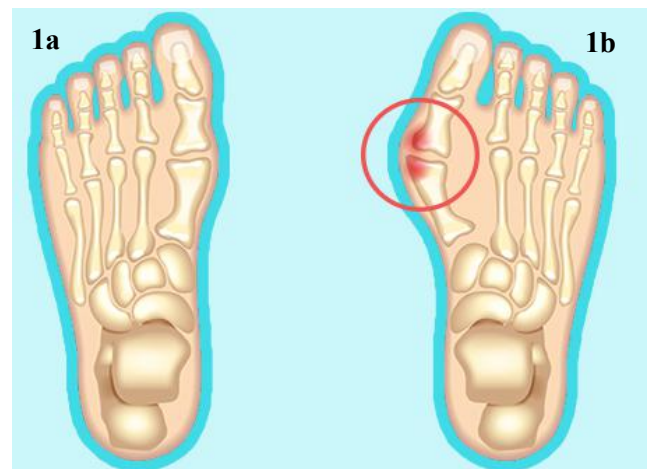


Figure1a: Normal foot

Figure1b: Bunion foot

Many research article claims that surgery is the only treatment that can get rid of bunions [3,5]. But apart from surgery various treatments and interventions are available in Ayurveda, and Yoga along with allopathy. These therapies may act as conservative therapy for a bunion.

The non-surgical treatment for bunion in 'initial treatment options' includes footwear advice (wider, lower-heeled shoes) or modification, bunion pads, orthoses, ice, and non-steroidal anti-inflammatory medications [6]. Following methods may help in treating bunion:

Ayurvedic pouch massages: Bunion can be treated with Ayurvedic pouch massages (Nirgundi Patra Pindasweda) and oil pads can help to improve the condition. The Pindasweda helps to improve the condition of OA due to bunions. In this method, fresh 250 gms of leaves of Nirgundi (Vitex nigundo) are cut into small pieces and then taken in a vessel with a round bottom. About 100 ml of Tila Taila (sesame oil) is added to this and fried with continuous stirring. These fried leaves are tied in cotton cloth to form a round pack with handle. These packs were then kept in hot sesame oil before using it for the sudation procedure. The oil prepared by this method is spread on the affected part by circularly moving palm. Heat is applied to the joint for Swedana by using this heated herbal packs by putting them above and beneath the body part to be treated. The procedure of sudation is continued for about an hour to complete the procedure of Nirgundi Patra Pindasweda [7].

Yoga to relieve bunion pain: Yoga has the potential for alleviating pain [8]. A study was performed to investigate whether the toe-spread-out (TSO) exercise affects the hallux valgus (HV) angle, the cross-sectional area (CSA) of the abductor hallucis (AbdH) muscle, and the hallux valgus angle during active abduction by Kim MH et al. [9]. They found that after the 8-week intervention, the HV angle, and the HV angle during active abduction, were significantly reduced, and the CSA of the AbdH muscle was significantly increased in the orthosis plus TSO exercise group, but there were no significant differences in the orthosis group [9]. Specific yoga practices are suggested such as to counter bunions heel lifts, toe lifts, seated toe abduction with a yoga strap, big toe mobilization from seated thread-the-needle, and yoga handshakes [10]. There is a scarcity of literature mentioning scientifically proven yoga positions to improve the condition of bunions, hence the various effect of Yogasanas should be studied to find the same.

Splints: These toe-spacers or toe-supports are used to keep the big toe in a normal position. The aim is to relieve the symptoms and slow down the progression of the bunion – although it's not clear whether this is possible. They can't

correct the misalignment. Splints are typically used at night [3].

Well-fitting shoes: People are advised to wear flat shoes that give the toes enough room. If the toes or big toe joint hurt, bunion pads can be used. If the middle part of the foot hurts (metatarsalgia), the toes can be cushioned or supported using shoe inserts or wearing special "rocker bottom shoes." Walking barefoot as much as possible is also recommended [3].

Physiotherapy: Special exercises can be done to try to strengthen and stretch the foot muscles [3].

Drugs: These may include non-steroidal anti-inflammatory drugs (NSAIDs) in the form of tablets or an ointment. Due to potential side effects, tablets should only be used over a short period [3].

Surgery for reconstructive procedures is not considered as a final solution as it may affect joint mobility and usually not adequately restored and long-term pain often results after surgery [11].

CONCLUSION

As surgery for bunions is not adequately restoring the condition of patient and long-term pain often results after surgery, non-surgical treatments for bunions should be more explored and studied for scientifically proven and accepted treatments. Ayurveda and yoga still lack the infallible treatment for the same..

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