

AN INSIGHT INTO THE EFFECT OF FOOTWEAR IN CONTROLLING LIFESTYLE DISEASE

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Abstract

The impact of footwear on controlling lifestyle diseases is a nuanced and essential facet of preventive healthcare. Footwear choices extend beyond mere fashion, serving as crucial determinants in the prevention and management of various lifestyle-related conditions. This abstract explores the multifaceted role of footwear in shaping health outcomes, emphasizing its influence on joint health, posture, and overall comfort.

Footwear tailored to specific needs, such as those with orthopaedic considerations or designed for particular activities, can significantly contribute to the prevention of lifestyle diseases. Conditions like diabetes and arthritis, often associated with foot-related complications, benefit from specially crafted shoes that mitigate risks and support overall foot health. The emphasis on proper fit and support becomes a cornerstone in the holistic approach to disease management.

The interplay between footwear and joint health is pivotal. Shoes designed for individuals with over-pronation, under-pronation, or neutral pronation play a crucial role in maintaining proper biomechanics. This, in turn, influences the stress and impact on joints, reducing the likelihood of musculoskeletal issues. The right footwear choice becomes an active measure in controlling lifestyle diseases linked to joint problems.

Posture, an often-overlooked aspect of health, is intricately connected to the shoes we wear. Footwear that promotes proper alignment and provides adequate support contributes to good posture. This not only addresses immediate comfort concerns but also has a lasting impact on spinal health, potentially reducing the risk of conditions associated with poor posture.

Beyond the physical aspects, footwear influences an individual's inclination towards physical activity. Comfortable and supportive shoes can motivate individuals to engage in regular exercise, a cornerstone in managing and preventing lifestyle diseases such as obesity and cardiovascular conditions. The choice of footwear, therefore, becomes a tangible and accessible strategy in fostering an active and healthy lifestyle.

In conclusion, the effect of footwear in controlling lifestyle diseases is far-reaching. From addressing specific medical needs to promoting overall physical activity, the right pair of shoes becomes a proactive tool in the pursuit of a healthier life. Understanding and appreciating the intricate connections between footwear choices and health outcomes are essential for individuals and healthcare professionals alike.

Key words: Biomechanics, cardiovascular, under-pronation, Posture.

Introduction

The influence of footwear on lifestyle diseases is a critical and often underestimated aspect of overall health and well-being. Beyond mere fashion or comfort, the shoes we choose to wear play a significant role in shaping our physical health and, consequently, our susceptibility to lifestyle-related conditions. From providing support to specific medical needs to encouraging physical activity, the impact of footwear is multifaceted. In this exploration, we delve into the intricate connections between the right pair of shoes and the prevention, management, and control of lifestyle diseases. Understanding how footwear contributes to joint health, posture, and overall comfort becomes pivotal in embracing a holistic approach to a healthier lifestyle.

The impact of proper footwear on minimizing lifestyle diseases is a crucial aspect of overall health and well-being. Footwear is often underestimated in its role in maintaining a healthy lifestyle, yet its effects ripple through the entire body, influencing posture, gait, and, ultimately, contributing to the prevention of various lifestyle-related diseases.

First and foremost, proper footwear plays a pivotal role in supporting the structure of the feet. Ill-fitting shoes or those lacking proper arch support can lead to conditions like flat feet, plantar fasciitis, and various foot deformities. These issues can result in discomfort, pain, and altered gait, affecting the entire musculoskeletal system. By investing in well-designed shoes that provide adequate arch support and cushioning, individuals can maintain the natural alignment of their feet, reducing the risk of developing foot-related lifestyle diseases.

Moreover, the ripple effect of proper footwear extends beyond the feet themselves. The alignment of the feet influences the posture of the entire body. Shoes with proper support contribute to maintaining a neutral spine position, reducing the strain on the back, hips, and knees. Improved posture is not only essential for musculoskeletal health but also impacts organ function and overall energy levels.

In the context of lifestyle diseases such as obesity and cardiovascular issues, the role of proper footwear becomes even more significant. Comfortable and supportive shoes encourage physical activity by minimizing discomfort during movement. Individuals are more likely to engage in regular exercise when equipped with suitable footwear, helping to manage weight and reduce the risk of obesity-related conditions. Furthermore, regular physical activity supported by proper shoes contributes to cardiovascular health, lowering the risk of heart diseases and related complications.

Diabetes, a prevalent lifestyle disease, often leads to foot complications due to poor circulation and nerve damage. Proper footwear becomes a preventive measure in managing diabetic foot health. Shoes designed to reduce pressure points, provide adequate cushioning, and accommodate potential foot deformities can significantly lower the risk of diabetic foot ulcers and infections.

In the realm of lifestyle diseases linked to joint health, such as arthritis, suitable footwear can be instrumental. Well-cushioned and supportive shoes help absorb shock during movement, easing the impact on joints and reducing pain associated with arthritis. Individuals with arthritis can benefit from shoes that provide stability and minimize joint stress, contributing to an improved quality of life.

Effect of proper footwear in diabetes control

One of the primary concerns for individuals with diabetes is peripheral neuropathy, which can lead to a loss of sensation in the feet. This diminished sensation makes individuals less aware of injuries or pressure points, increasing the risk of developing foot ulcers. Proper footwear for diabetes control involves shoes with a protective design, offering adequate

cushioning and support to reduce the risk of injuries. Additionally, shoes with a wider toe box can prevent pressure on the toes, minimizing the potential for deformities and ulcers.

Proper footwear plays a crucial role in diabetes control by addressing specific foot-related complications associated with the condition. For individuals with diabetes, maintaining foot health is paramount, as diabetes can lead to peripheral neuropathy, poor circulation, and an increased risk of foot ulcers and infections. The impact of suitable footwear in diabetes control is multifaceted, encompassing prevention, comfort, and overall well-being.

Proper circulation is another vital aspect of diabetes control, as compromised blood flow can slow down the healing process and exacerbates foot issues. Well-designed footwear ensures proper blood circulation by avoiding tightness and constriction. Shoes with breathable materials also contribute to maintaining a healthy foot environment, reducing the risk of infections.

The prevention of calluses and corns is an essential element of diabetes control. Ill-fitting shoes or those with seams and rough edges can lead to friction and pressure points, increasing the likelihood of developing these issues. Proper footwear choices involve selecting shoes with a smooth interior, seamless construction, and appropriate sizing to minimize friction and reduce the risk of skin breakdown.

Moreover, suitable footwear for diabetes control includes features that accommodate potential foot deformities or structural changes. Shoes with adjustable closures, such as Velcro straps, can accommodate swelling, ensuring a comfortable fit throughout the day. Custom orthotic insoles may also be recommended to provide additional support and cushioning based on an individual's foot structure.

In summary, the effect of proper footwear in diabetes control is profound and multifaceted. By addressing the specific foot-related complications associated with diabetes, such as peripheral neuropathy, poor circulation, and an increased risk of ulcers, suitable footwear becomes a preventive and therapeutic measure. Choosing shoes that prioritize protection, comfort, and proper fit contributes significantly to foot health, ultimately aiding in diabetes control and minimizing the risk of complications.

Effect of proper footwear in arthritis control

Proper footwear plays a crucial role in controlling arthritis symptoms by providing support, reducing impact on joints, and enhancing overall comfort. Arthritis, characterized by inflammation of the joints, often leads to pain, stiffness, and reduced mobility. The choice of footwear becomes instrumental in managing these symptoms and improving the quality of life for individuals with arthritis.

Supportive footwear is essential in arthritis control as it helps maintain joint stability. Shoes with good arch support and cushioning can alleviate stress on the joints, especially in weight-bearing areas like the knees and hips. This support is particularly beneficial for individuals with osteoarthritis or rheumatoid arthritis, as it helps reduce pain and discomfort associated with joint movement.

Proper footwear can also contribute to minimizing the impact on joints during walking and other weight-bearing activities. Shock-absorbing soles and cushioned insoles help absorb the forces generated with each step, reducing the stress on arthritic joints. This cushioning effect is especially important for those with arthritis in the ankles, knees, and lower back, providing relief and promoting better mobility.

Footwear designed to accommodate the specific needs of individuals with arthritis can contribute to better control of the condition. Shoes with adjustable closures, such as Velcro straps, allow for a customized and comfortable fit, accommodating potential swelling or changes in foot shape. Additionally, shoes with a wider toe box can prevent compression and discomfort, addressing joint deformities that may be associated with certain types of arthritis.

Choosing shoes with a low heel and a stable sole is another key consideration for arthritis control. Low heels promote a more natural walking gait and reduce stress on the knees and hips. Stable soles provide a secure base, helping individuals maintain balance and stability, which is especially important for those with arthritis-related joint instability.

Proper footwear is a valuable component in arthritis control, offering support, cushioning, and customization to address the specific needs of individuals with arthritis. By minimizing stress on joints, promoting stability, and ensuring comfort, suitable footwear plays a proactive role in managing arthritis symptoms and enhancing the overall well-being of those living with this condition.

Effect of proper footwear on posture

Proper footwear significantly influences posture by providing support, alignment, and stability. The relationship between footwear and posture is integral, as the feet serve as the foundation for the entire body. The effects of wearing appropriate shoes extend beyond comfort, impacting the alignment of the spine and overall body posture.

Well-designed footwear with proper arch support helps maintain the natural curvature of the spine. Arch support prevents over-pronation or supination of the feet, which can lead to misalignment of the ankles, knees, hips, and ultimately the spine. By promoting a more neutral foot position, supportive shoes contribute to better overall body alignment, reducing the risk of poor posture.

The cushioning and shock absorption properties of suitable footwear play a crucial role in maintaining posture. Shoes that provide adequate padding and shock absorption help distribute the forces exerted during walking or standing, reducing the impact on joints and the spine. This is particularly important in preventing discomfort and fatigue that can contribute to slouching or other compensatory postural changes.

Furthermore, proper footwear influences gait mechanics, affecting how individuals walk and carry themselves. Shoes that support a natural and balanced gait contribute to a more upright posture. Conversely, poorly fitting or unsupportive shoes can lead to an altered gait, potentially causing instability, muscle imbalances, and postural deviations.

The height of the heel in footwear is another critical factor in posture. High heels, for instance, can lead to an anterior pelvic tilt, increased pressure on the lower back, and changes in spinal alignment. Flat shoes, on the other hand, may contribute to a different set of issues, such as reduced arch support and increased strain on the lower back. Choosing shoes with a moderate heel height that supports the natural curvature of the spine is essential for maintaining proper posture.

Proper footwear is integral to maintaining good posture. Supportive shoes with proper arch support, cushioning, and shock absorption properties contribute to the alignment of the spine and reduce the risk of postural issues. Considering factors like gait mechanics, heel height, and overall foot support when choosing footwear can positively impact posture, promoting a more comfortable and aligned stance for individuals.

Effect of proper footwear on joint health

Proper footwear plays a significant role in maintaining joint health by providing support, cushioning, and stability. Joints, especially those in the feet, ankles, knees, and hips, are subjected to considerable stress during daily activities. The right footwear can help distribute this stress more effectively, reducing the risk of injuries and promoting overall joint well-being.

Supportive footwear helps to stabilize joints, particularly those in the lower extremities. Shoes with proper arch support and a stable sole help maintain the natural alignment of the foot, preventing excessive pronation or supination. This stability is crucial for the overall alignment of the leg joints, including the ankles and knees, and can contribute to a more even distribution of forces during movement.

Cushioning is another essential factor in the impact of footwear on joint health. Shoes with adequate padding absorb shock and reduce the impact on joints, especially in weight-bearing activities like walking or running. This cushioning effect is particularly beneficial for individuals with conditions like osteoarthritis or rheumatoid arthritis, where joint surfaces may be more susceptible to wear and tear.

Proper footwear can also mitigate the risk of injuries and inflammation in the joints. Shoes that provide a secure fit and prevent excessive movement within the shoe reduce the likelihood of sprains, strains, and other injuries. Additionally, well-designed shoes with a supportive structure can contribute to the prevention of conditions like plantar fasciitis, which can affect the joints in the feet and lead to discomfort.

The choice of footwear also influences gait mechanics, impacting how forces are transmitted through the joints. Shoes that support a natural gait pattern contribute to a more harmonious distribution of forces, reducing the strain on joints. Conversely, ill-fitting or unsupportive footwear may lead to compensatory movements, potentially causing imbalances and increased stress on certain joints.

Proper footwear is instrumental in promoting joint health by providing support, cushioning, and stability. The right shoes contribute to the overall alignment of the lower extremities, reduce the impact on joints during movement, and help prevent injuries. Whether for everyday activities or specific sports, choosing footwear that addresses individual needs and provides adequate support is a proactive measure in maintaining joint health and preventing long-term issues.

While the direct effect of footwear on brain functioning may not be immediately apparent, there are indirect ways in which proper footwear can contribute to overall cognitive well-being. The relationship between footwear and brain function is primarily influenced by factors such as comfort, biomechanics, and the prevention of physical discomfort or pain.

- Pain and Discomfort Reduction:** Uncomfortable or ill-fitting shoes can lead to physical discomfort and pain, especially in the feet, legs, and back. Persistent pain can distract individuals and impede concentration, potentially affecting cognitive performance. Properly fitting and supportive shoes contribute to overall comfort, reducing the likelihood of discomfort-related distractions.

- Posture and Alignment:** Proper footwear supports good posture and body alignment. When the body is aligned correctly, it helps reduce muscle tension and fatigue. Improved posture can positively impact blood circulation, including to the brain, potentially enhancing alertness and cognitive function.

- Biomechanics and Movement Efficiency:** The way we move, including our gait and overall biomechanics, can influence brain function. Shoes that support natural movement and provide proper arch support can contribute to efficient biomechanics. Efficient movement patterns may positively impact brain activity by reducing the cognitive load associated with compensatory movements or discomfort.

- Physical Activity and Brain Health:** While not directly related to the shoes themselves, the choice of footwear can influence an individual's willingness to engage in physical activity. Regular physical activity is associated with improved cognitive function, including memory and attention. Comfortable and supportive shoes can encourage individuals to participate in activities that promote overall brain health.

The impact of proper footwear on brain functioning is indirect but significant. By contributing to comfort, supporting good posture, and facilitating efficient movement, suitable footwear plays a role in reducing physical distractions and promoting an environment conducive to cognitive well-being. Additionally, the encouragement of physical activity through comfortable shoes can have positive implications for overall brain health.

Conclusion

In conclusion, the impact of proper footwear on controlling lifestyle diseases is profound and far-reaching. Choosing the right shoes tailored to individual needs and health conditions plays a pivotal role in preventing, managing, and mitigating the risks associated with various lifestyle diseases.

Properly designed footwear, whether specialized for diabetes, arthritis, or aligned with specific physical activities, contributes significantly to overall well-being. Supportive shoes can positively influence joint health, reduce the risk of foot complications, and enhance mobility, especially in conditions like arthritis and diabetes.

The relationship between footwear and lifestyle diseases extends beyond physical health. Comfortable and suitable shoes encourage regular physical activity, a cornerstone in managing conditions such as obesity and cardiovascular diseases. The prevention of foot-related complications through proper footwear aligns with broader strategies for diabetes control and overall health promotion.

Moreover, the impact of footwear on posture, gait mechanics, and the reduction of physical discomfort underscores the holistic role of proper shoes in maintaining a healthy lifestyle. By addressing these aspects, suitable footwear actively contributes to the prevention of musculoskeletal issues, ultimately reducing the likelihood of a sedentary lifestyle and associated diseases.

In essence, the careful selection of footwear is a proactive step in disease prevention and management. It goes beyond mere comfort, becoming an integral component of a comprehensive strategy for a healthy, active, and fulfilling life. As individuals become more conscious of the symbiotic relationship between their feet and overall health, the role of proper footwear gains prominence as a tangible and accessible measure in the pursuit of a healthier lifestyle.

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