

# Podiatry and the Exploding Growth of the Aging Population

The need for our services will only increase in the coming decades.

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*The American Board of Multiple Specialties in Podiatry (ABMSP) has recognized the growing need for podiatrists to become proficient in the care of the geriatric foot. In fact, they have recently introduced a new certification in Lower Extremity Geriatric Medicine. This article is the first in a series which will emphasize the importance of providing geriatric podiatry care to an increasingly aging population.*

## Epidemiology and Implications to Podiatric Medicine

Much of epidemiological research is devoted to searching for causal factors influencing one's risk of disease. The goal is to identify a cause so that appropriate public health action might be taken. While epidemiology initially focused exclusively on epidemics and communicable disease, it expanded in the mid-20th century to include chronic diseases, injuries, birth defects, maternal and child health, occupational health, and environmental health. Epidemiology has been instrumental in characterizing many non-acute diseases such as the numerous conditions associated with cigarette smoking like pulmonary diseases, lip, lung, and throat cancer.<sup>1</sup>

Epidemiology also has many applications to podiatric medicine as well as applications to those associat-

ed with older patients. For example, a significant application includes peripheral vascular disease that podiatric physicians often see. Other applications include numerous foot deformities (e.g., hallux valgus, hammer toes, tailor's bunions, etc.), which, for example, while common in virtually all

ulation mainly due to advances by the healthcare community have fueled an increased prevalence of chronic disorders. For example, unless there will be a way to prevent or cure diabetes, as the population of older people increases, the number of people with diabetes will also experience a major increase.

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age groups, is frequently complicated in older adults by such conditions as osteoarthritis or diabetes; which especially in individuals with occlusive peripheral vascular and/or neuropathic conditions, may result in serious disabling ulcerations, amputations, and ultimately even death.

## Projected Increase in Aging and Implications to Podiatric Medicine

Over the next several decades, an extraordinary increase in the need for podiatric medical care will occur. A major reason for this prediction is the explosive increase in the number and proportion of people who are aged 65 and older. Increases in the aging pop-

Major increases in the prevalence of chronic diseases will also occur in such conditions as osteoarthritis, cancer, cardiovascular disease, and peripheral vascular disorders, just to name a few, all with major often devastating effects in the pedal extremity. These situations will have a major impact on podiatric medicine either directly or indirectly.

While it is obvious that conditions like osteoarthritis can have signs and symptoms in the foot and ankle, it also may affect the spine, hip, and knee. These pedal and extra-pedal conditions, for example, often impair gait and the biomechanics of locomotion. Conversely,

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spine, hip, and knee disorders also may result in podiatric medical conditions. A less obvious relationship to podiatric medicine is the management of cardiovascular disease. How

relatively fast over the past century due to fertility declines in the first half of the twentieth century and to decreases in mortality, with medical advancements contributing to decreases in mortality among the oldest, those aged 85 and older. The

aging, nor is it the fastest growing. In 2010, 50 countries had a higher proportion than the U.S. of people aged 65 and over, and by 2050, this is projected to reach 98, almost half the countries in the world.<sup>4</sup> Over 38 percent of those aged 65 and over had one or more disabilities in 2010, with the most common difficulties being walking, climbing stairs, and doing errands alone. Furthermore, due to aging, there has been a marked increase in health risks, increased frequency of falls, chronic conditions, disability, and long-term care.

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frequently do cardiologists interact with podiatric physicians when, after advising patients of the need to walk as a means of exercise, podiatrists discover that patients neglect such advice? This may not be because patients are noncompliant, but rather that in addition to their cardiovascular condition, patients experienced foot pain that inhibited walking ability. Yet, in spite of the need for patients to engage in exercise regimens such as walking, it is uncommon for cardiologists to have podiatric physicians as part of the team managing cardiovascular patients.

### **Aging of the United States**

Many of the aforementioned conditions may occur in people throughout life, but are especially common during the aging process. Therefore, as more people live longer, it is axiomatic that this will result in an increasing prevalence of a number of chronic diseases. While global aging represents a triumph of medical, social, and economic advances, it also presents tremendous challenges that affect economic growth, formal and informal social support systems, and the ability of states and communities to provide resources, including adequate healthcare for older citizens (National Institute on Aging and U.S. Department of State, 2007). The population aged 65 and older has grown faster than the population under age 65 over the period of 1900 to 2010. In 1900, people aged 65 and older numbered 3.1 million, and by 2010, their number had grown 12-fold to 40.3 million.<sup>2</sup>

The older population has grown

disproportionate growth of older age groups, known as “population aging,” is expected to continue into the future. In absolute numbers, the older population is projected to more than double from 40.3 million in 2010 to 83.7 million in 2050. Between 1900 and 2010, the percentage of the people aged 65 and over in the total U.S. population increased from 4.1 percent to 13.0 percent. This proportion is projected to rise further in the coming decades. By 2050, the U.S. population aged 65 and over is projected to reach 20.9 percent, the steepest increase occurring between 2010 and 2030.<sup>3</sup>

In 2011, the Baby Boom generation, people born from 1946 to 1964,

### **Podiatric Medical Role in Fall Prevention and the Aged**

Between 2000 and 2016 mortality from falls in people over age 75 more than doubled, reports a study in the *Journal of the American Medical Association*.<sup>5</sup> In 2016, the rate of death from falls in people 75 and over was 111 per 100,000 compared to 52 per 100,000 in 2000. Podiatric medicine’s potential role in preventing mortality by mitigating the risk of falling should not be underestimated. Intervention by podiatric medicine extends far beyond the prevention of disorders that directly affect the pedal extremity. While such intervention includes advising patients to avoid high heel shoes, sandals, and slippers (“slip-

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began to turn age 65. As this large Baby Boom cohort ages, the United States will experience rapid growth in both the number of those aged 65 and older and their share of the total population. The implications of the aging of the U.S. population will be of significant interest on issues of longevity, health, and mortality, straining healthcare in general and significantly increasing the need for podiatric medical care.

### **An Aging World**

The United States is not the only country experiencing population

pers make you slip”), other forms of public health education should be part of the podiatric physician’s interaction with patients. Patients should be reminded to get rid of small scatter rugs that they have at home, remove clutter from the floor, and eliminate extension cords that stretch across the floor. In addition, recommending daily exercises that strengthen the legs also should be advised. Also, patients should be advised to reduce the height of thresholds between rooms. While these interventions may not have the perceived glamour of sur-

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gery and other medically complicated procedures, they can be life-saving. A 2011 randomized trial in Australia found that comprehensive podiatric medical intervention resulted in a 36% reduction in the rate of falls in a community-dwelling of older people (mean age 74.2 years). It employed: foot orthoses, footwear advice, and home-based foot and ankle exercises.<sup>6</sup>

### **Conclusion**

As we go deeper into the twenty-first century, it is obvious that there will be a continuing increase in the number and percent of people age sixty-five and over both in the United States and worldwide. Since the incidence and prevalence of health problems increases as the population ages, the healthcare community will become more challenged, especially but not limited to the implications of chronic dis-

ease that affect older people and the increased number of medical visits that they will require to manage their healthcare needs. Podiatric medicine will be particularly affected due to major increases in the need for podiatric medical care as a result of this explosion in the older population. It is important that the profession vigorously communicate this to other healthcare providers and the population in general. **PM**

### **References**

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<sup>5</sup> Hartholt KA, et al. Mortality from Falls among U.S. Adults Aged 75 Years and Older, 2000-2016, *Journal of the American Medical Association*, June 4, 2019: 321(21):2131-2133.

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