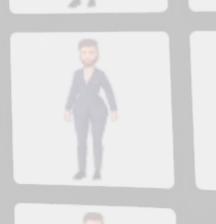
### LONGEVITY, AGING,

LIFESPAN, AND AVATARS

DR.JOSHUA Eyes DEXHEIMER, PHD, CSCS

available in all app experiences.





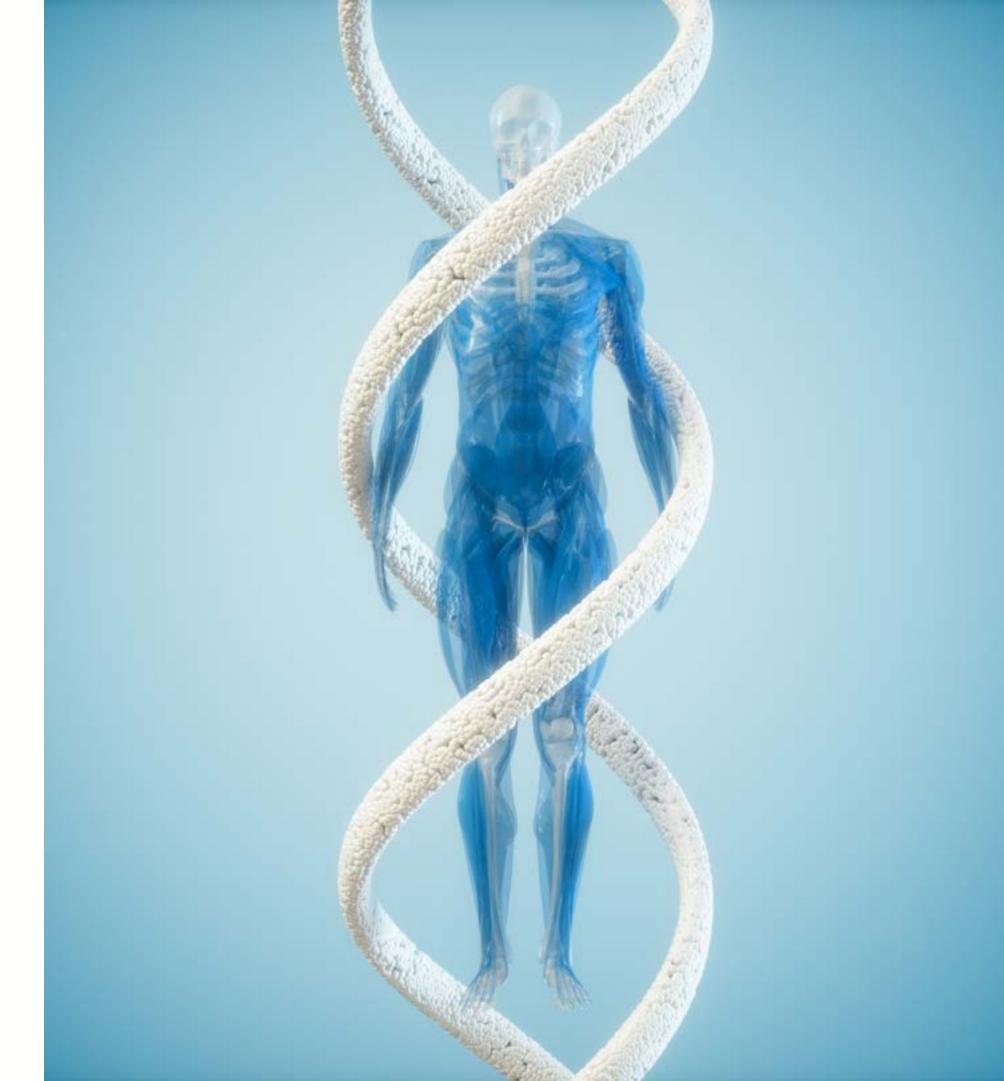




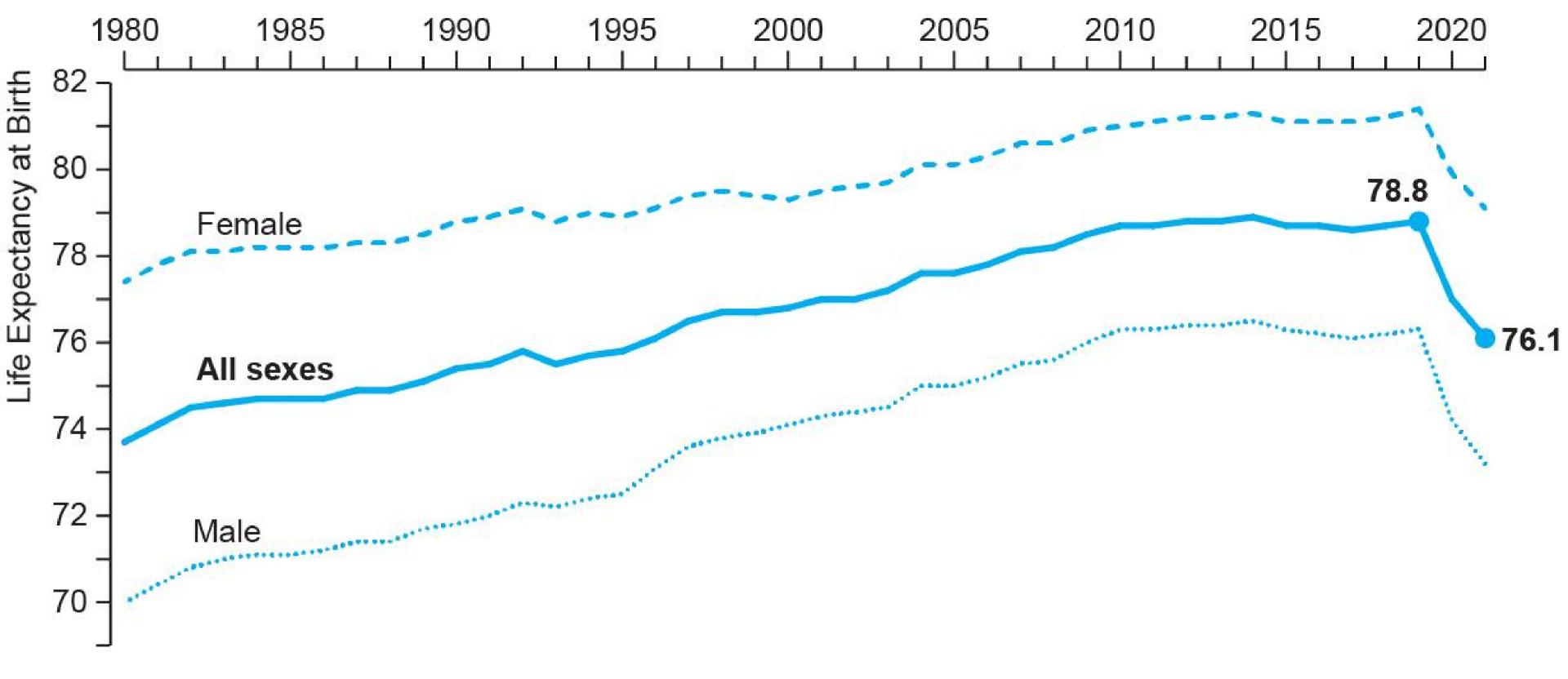


#### Objectives

- Define this sector of aging and longevity
- Factors that influence longevity and aging
- Explore the role avatars and digital twins play in lifespan medicine
- How avatars impact longevity



Life Expectancy by Sex, 1980–2021\*



<sup>\*2021</sup> estimates are based on provisional data.





■ Gen X

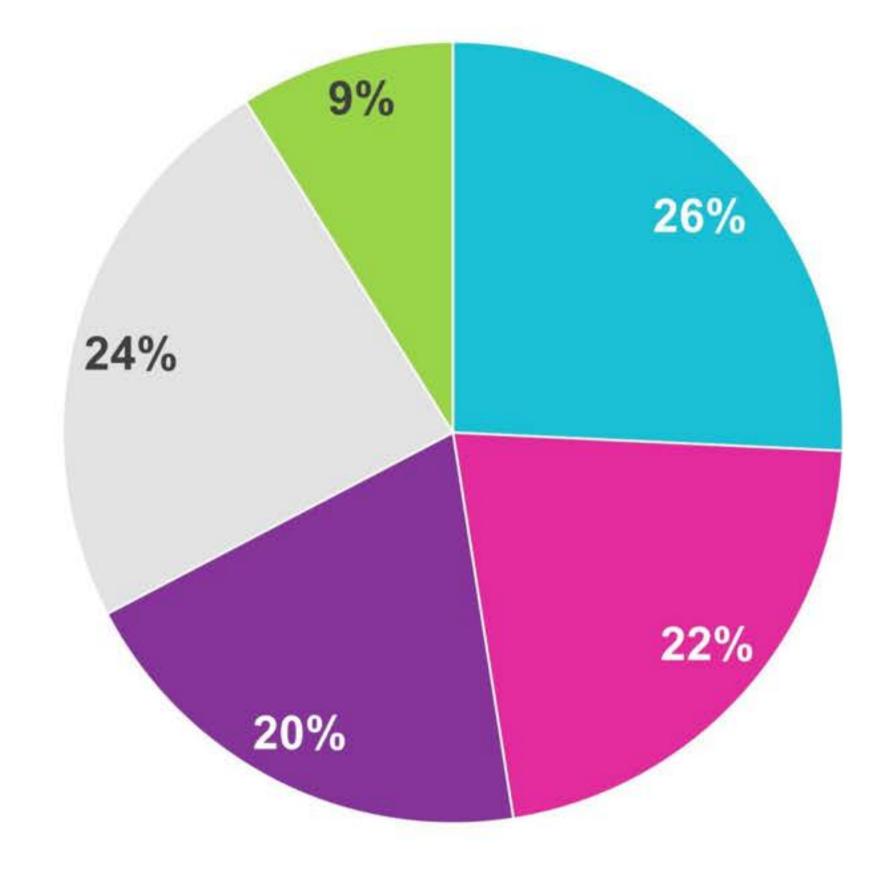
Born '65-'79 Currently age 40-54

Baby Boomers

Born '46-64 Currently age 55-73

Greatest Generation

Born '45 & before Currently age 74+



By: Mindstream Media | Source: Nielsen Total Audience Report: Q1 2017

Policy & Public Interest

People & Culture

World Anti-Aging & Longevity Complementary and Alternative Medicine Market Report 2022-2028: Market Size is Expected to Reach \$182.9 Billion, at a CAGR of 22.2%





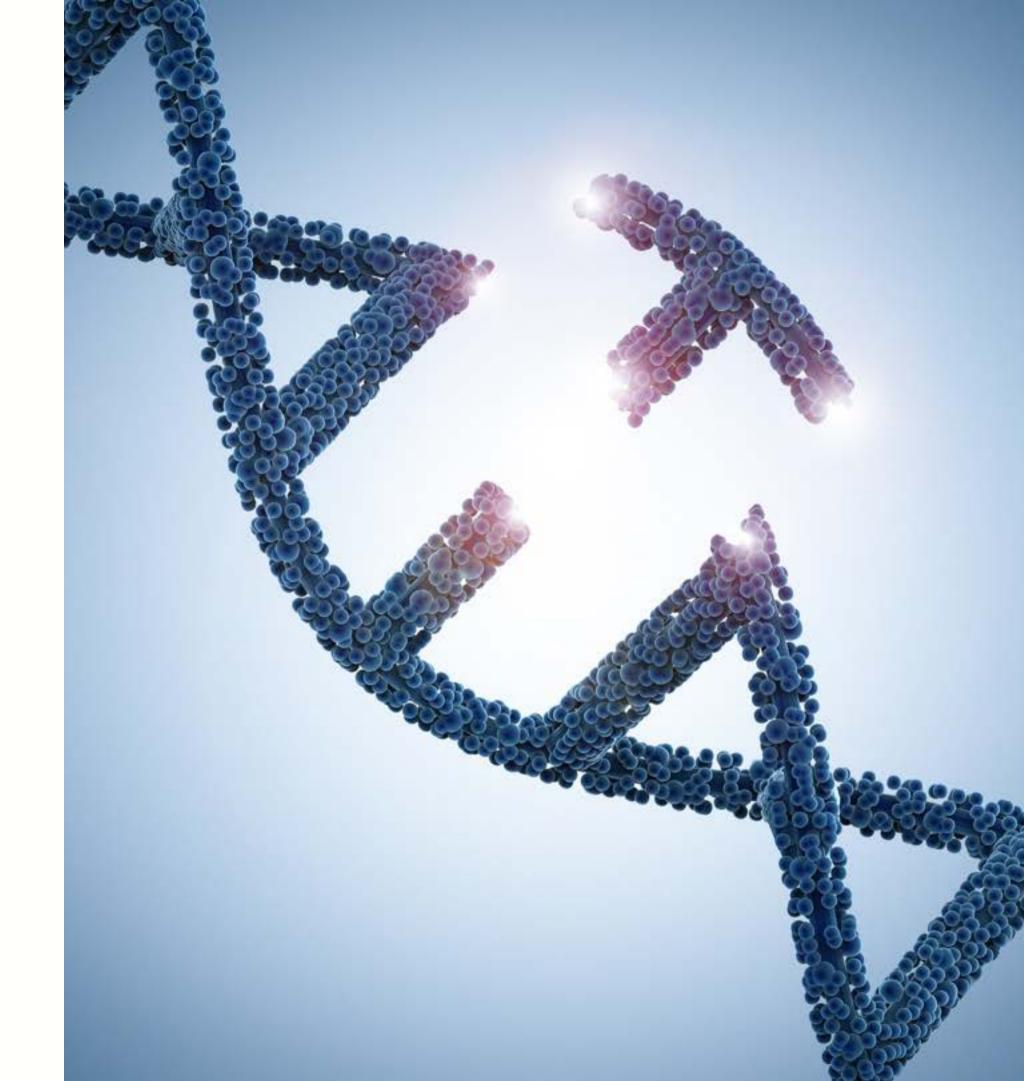
# Mechanisms of Longevity

- Genetics and Epigenetics
- Metabolism
- Musculoskeletal
- Cardiorespiratory
- Body Composition



# Genetics & Epigenetics

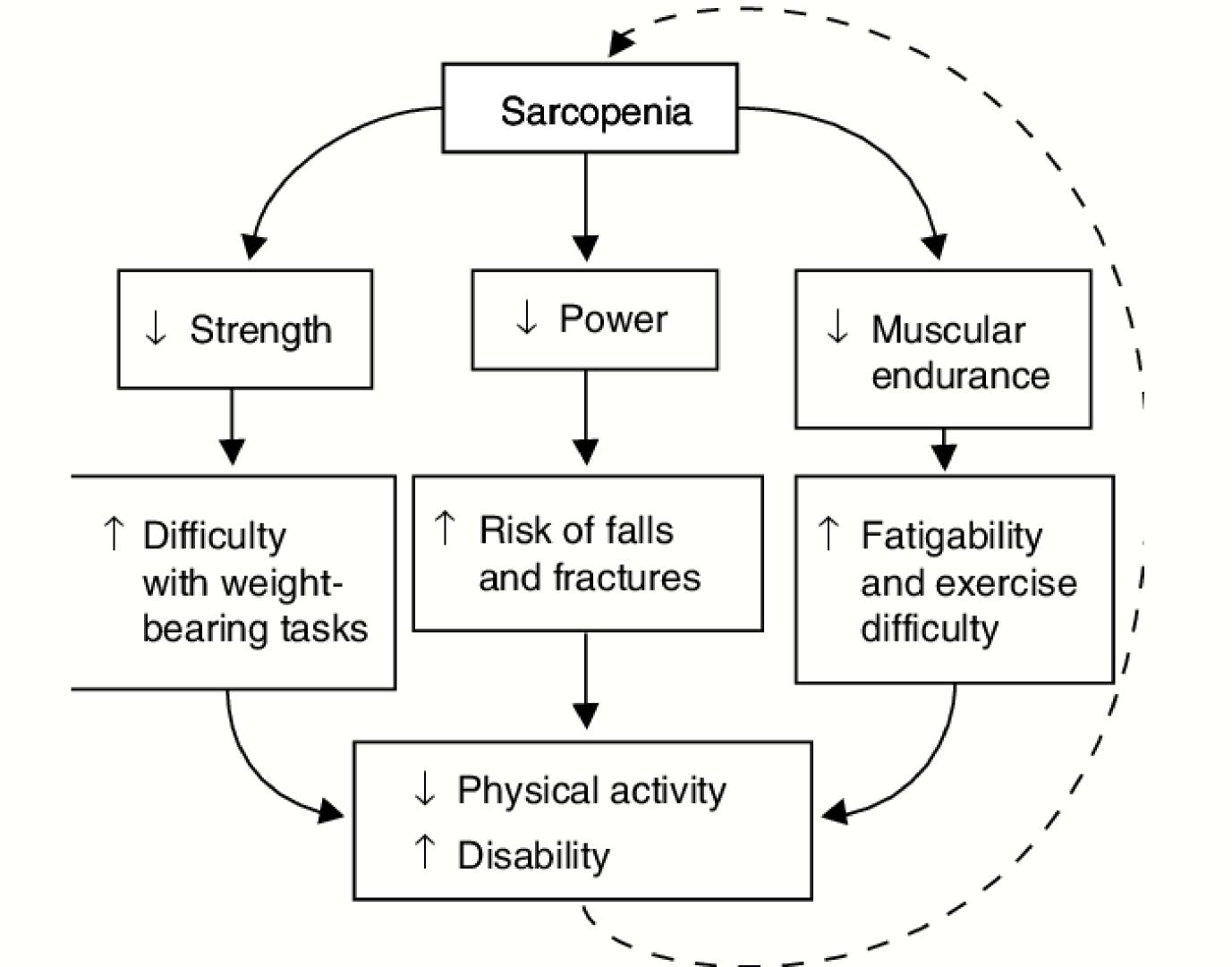
- Traits that are passed on from one generation to the next Genetics
- Genes can change Epigenetics
- Lifestyle behavior and environmental factors



#### Metabolism

- Chemical processes that occur within our body in order to maintain life
- ATP
- Hormonal imbalance and dysregulation of macronutrients





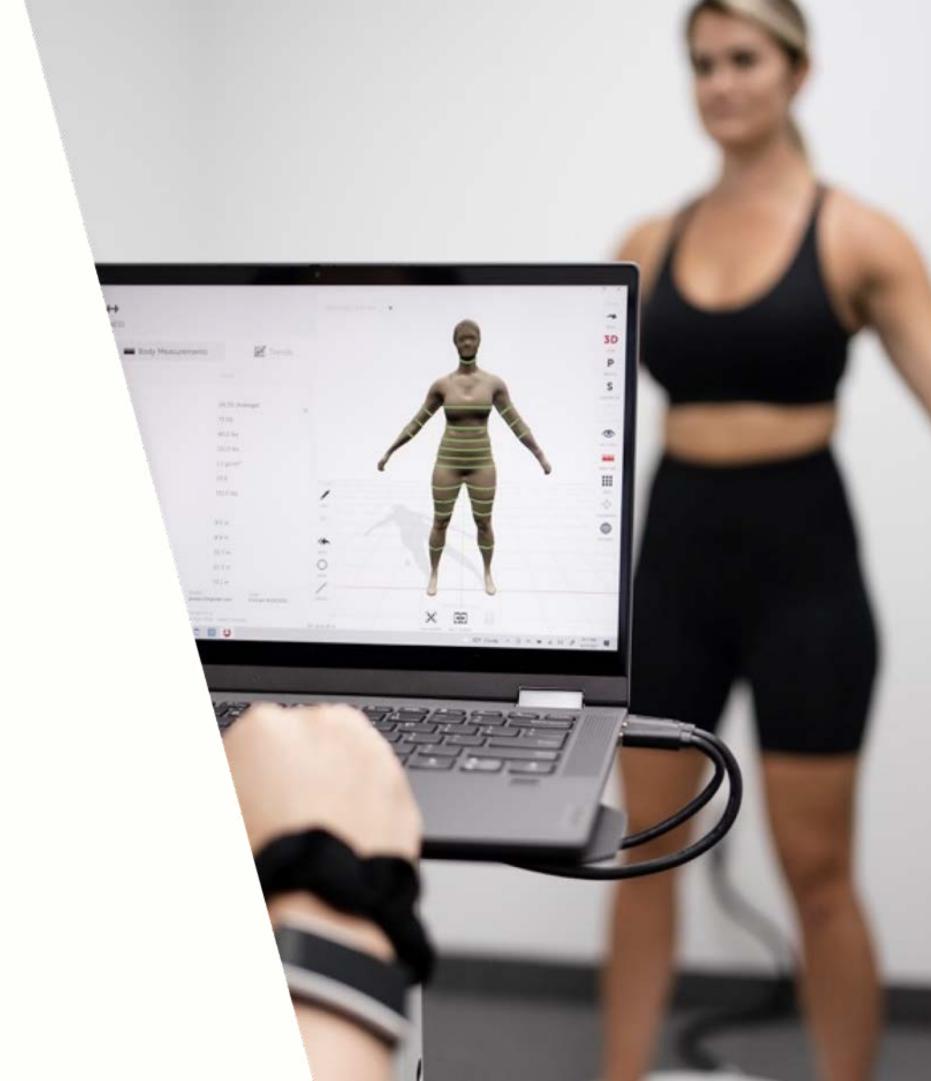
### Cardiorespiratory

- VO2max
- Oxygen delivery and utilization



#### **Body Composition**

- What the body is composed of
- Fat mass and lean mass
- Visceral and subcutaneous fat
- Inflammation and epigenetic changes







Body

Skin Tone

Hair

Face Shape

Face Markings

Face Lines

Eyes

Eyebrows

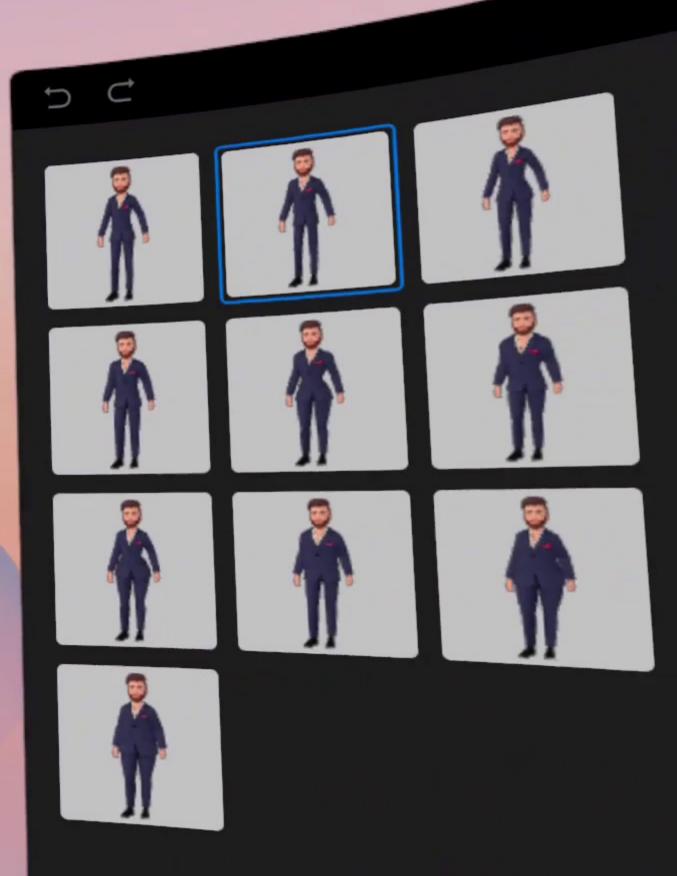
Eyelashes

Save Avatar & Continue

available in all app experiences.

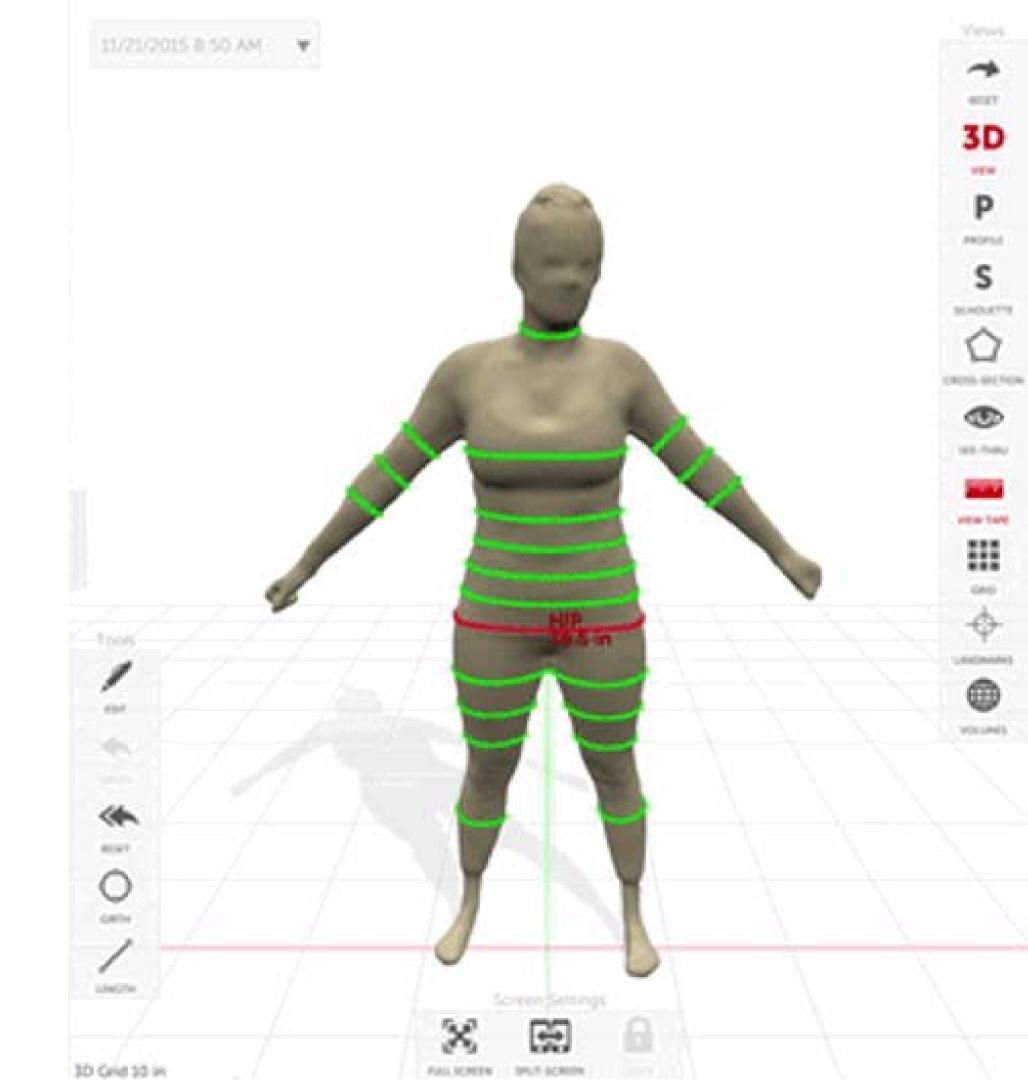
Loarn More





#### Avatars

- Digital representation of self
- Digital twin
- Digitization of the body
- Software to analyze categories of longevity

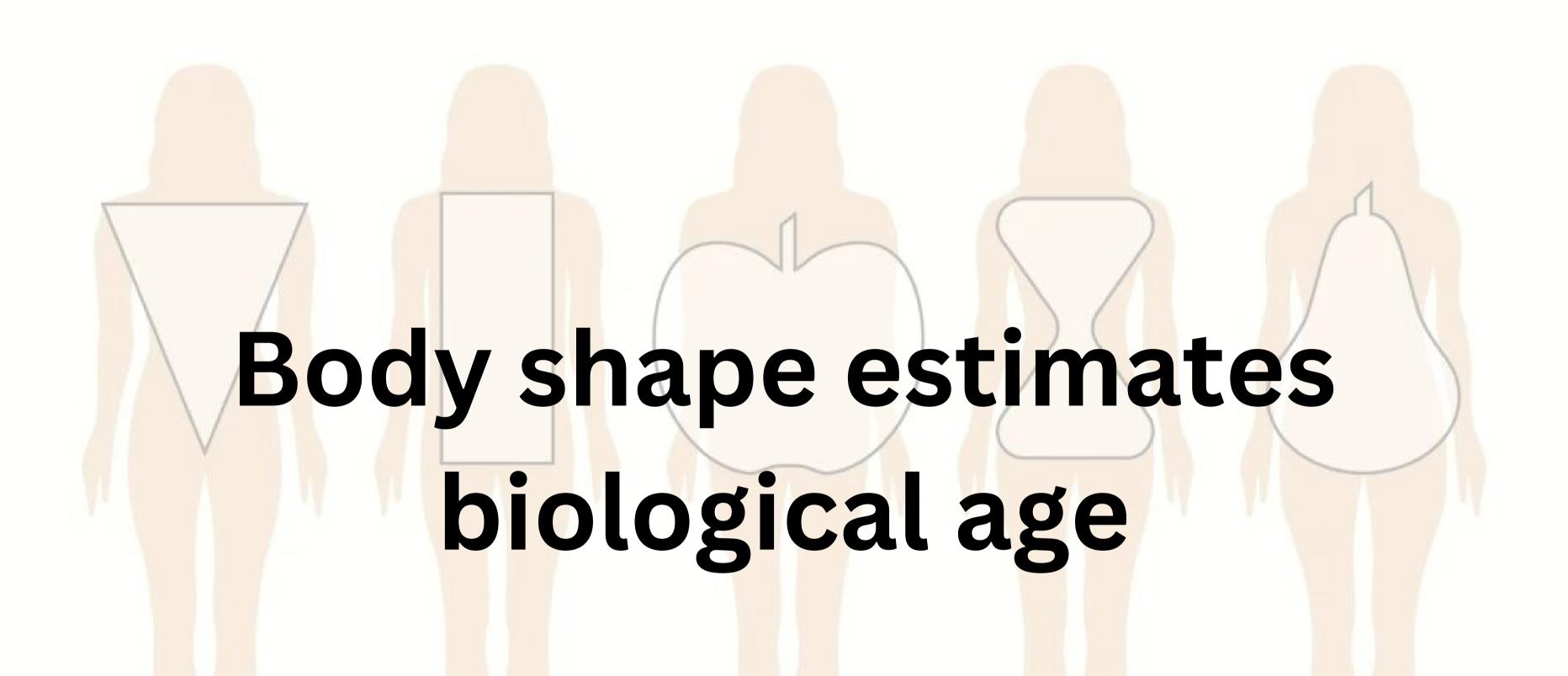


### Combat Aging

- Baseline assessments
- Blood tests
- Cardiorespiratory tests
- Metabolic test
- Body composition tests







TRIANGLE

RECTANGLE

APPLE

HOURGLASS

PEAR

## Body Shape & Disease Risk

- WC of 35in or 40in for females and males
  - Body shape metrics used as indicators for
- cardiovascular, metaboilc, and musculoskeletal diseases
- Body shape metrics predict MetS

