

Capability

Sensory



Hearing



Vision

Motion



Locomotion



Reach & Stretch



Dexterity

Cognitive



Communication



Intellectual
Functioning

Key Capabilities

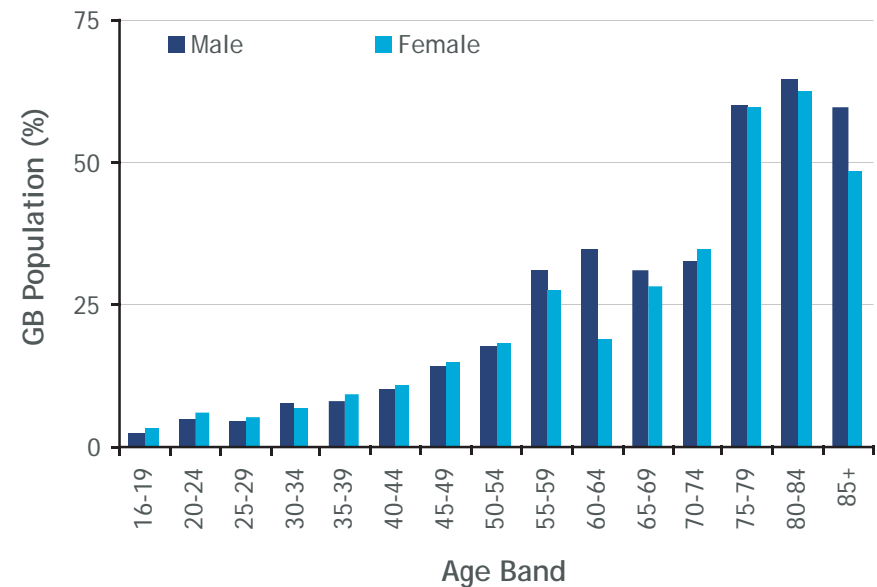
Key Capabilities

A person's overall capability describes the combination of:

1. Sensory
2. Motion
3. Cognitive

According to the Office of National Statistics, the total number of people in Great Britain identified as having reduced overall capability is over 8.5million.

Overall Capability Loss - Variation by Age and Gender for Great Britain (%)



Source:
Disability in Great Britain (1999) Department of Social Security,
Corporate Document Services, London, UK

Capability



Hearing



Vision

Sensory

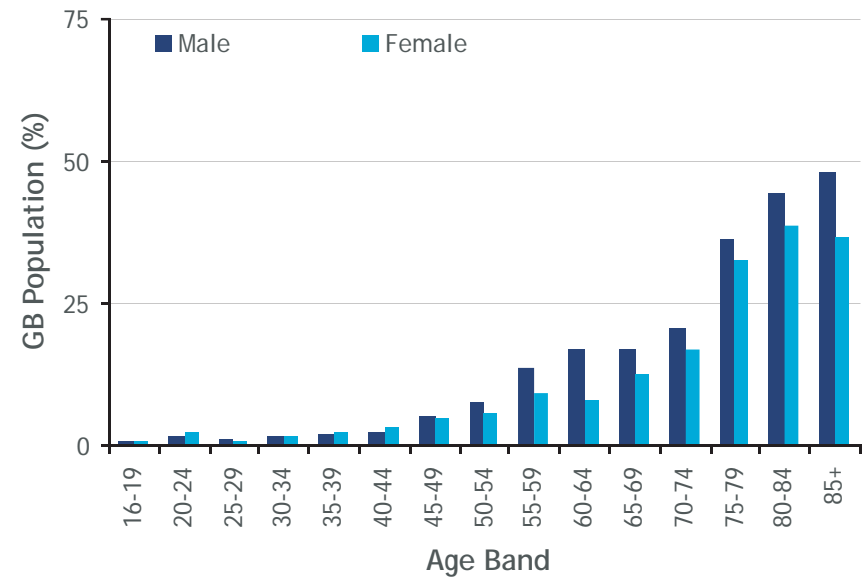
Sensory Capability

A person's sensory capability describes the combination of:

1. Hearing
2. Vision
3. Tactile
4. Taste
5. Smell

According to the Office of National Statistics, the total number of people in Great Britain identified as having reduced sensory capability (hearing and vision only) is over 3.9 million.

Hearing and Vision Capability Loss -
Variation by Age and Gender for Great Britain (%)



Source:
Disability in Great Britain (1999) Department of Social Security,
Corporate Document Services, London, UK

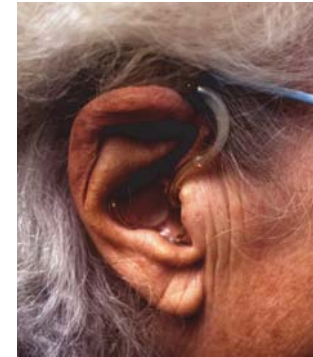
Capability



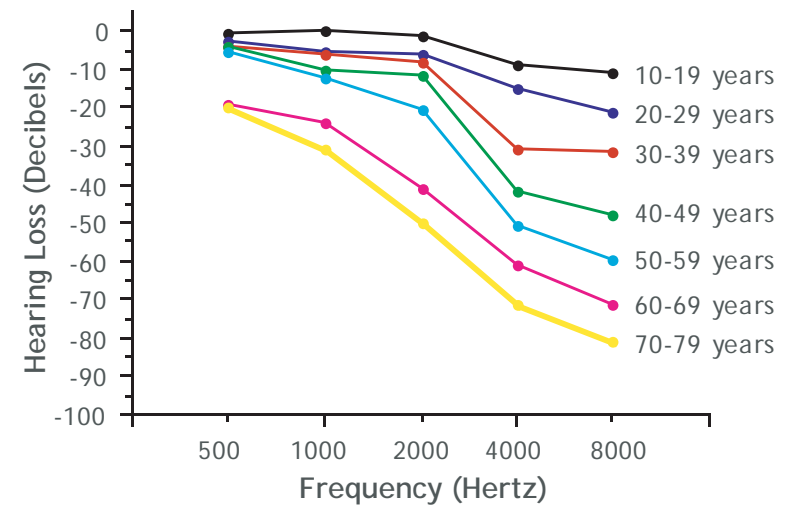
Hearing

Hearing

Hearing ability decreases with age, in particular at higher frequencies.



Graph Showing Normal Deterioration with Ageing for Men



Source:
Beales P H, (1965) Noise, hearing and deafness

Capability



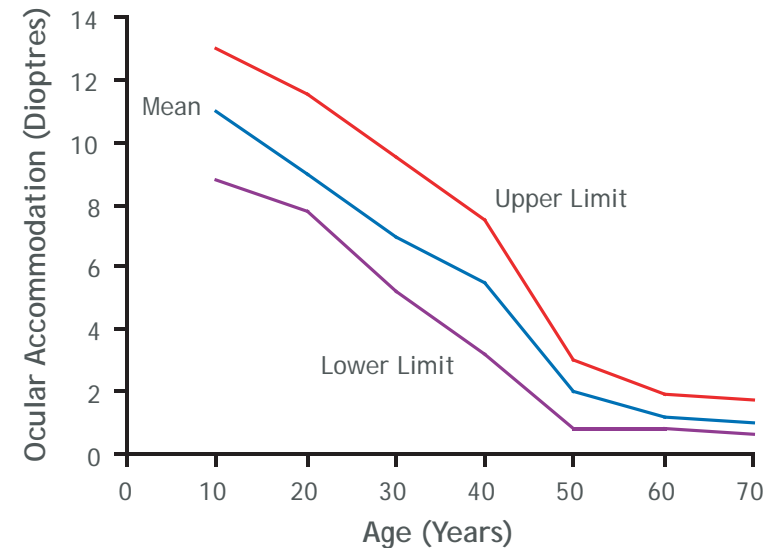
Vision

Vision

The functional capability of the eye decreases with age. One aspect of the change is the ability and speed of the eye to focus on near and far objects (accommodation).



Changes of Accommodative Ability of the Eye



Source:
Vassilief A and Dain S (1986) 'Bifocal wearing and VDU operation: a review and graphical analysis' Applied Ergonomics Vol 17 (2): 82 - 86

Capability



Vision

Simulations of Some Visual Impairments



No Impairment



Short-sightedness



Tunnel Vision



Diabetic Retinopathy



Macular Degeneration



Cataracts

Capability



Locomotion



Reach & Stretch



Dexterity

Motion

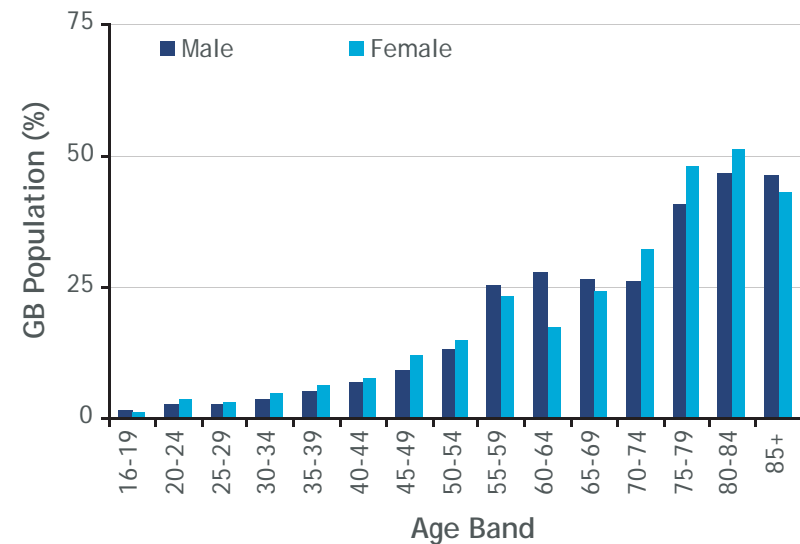
Motion Capability

A person's motion capability describes the combination of:

1. Locomotion
2. Reach and Stretch
3. Dexterity

According to the Office of National Statistics, the total number of people in Great Britain identified as having reduced motion capability is over 6.7 million.

Motion Capability Loss - Variation by Age and Gender for Great Britain (%)



Source:
Disability in Great Britain (1999) Department of Social Security,
Corporate Document Services, London, UK

Capability



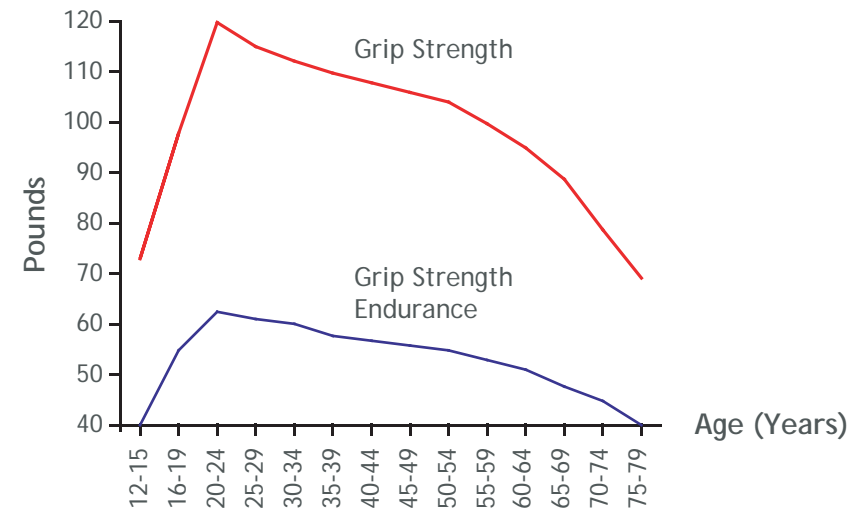
Dexterity

Dexterity

Dexterity decreases with age leading to reduced control and grip strength.



Relation of Age to Maximum Grip Strength and Grip Strength Endurance



Source:

Burke *et al* (1953) 'The relation of grip strength and grip strength endurance to age' Journal of Applied Physiology Vol 5: 628 - 630

Capability



Communication



Intellectual
Functioning

Cognitive

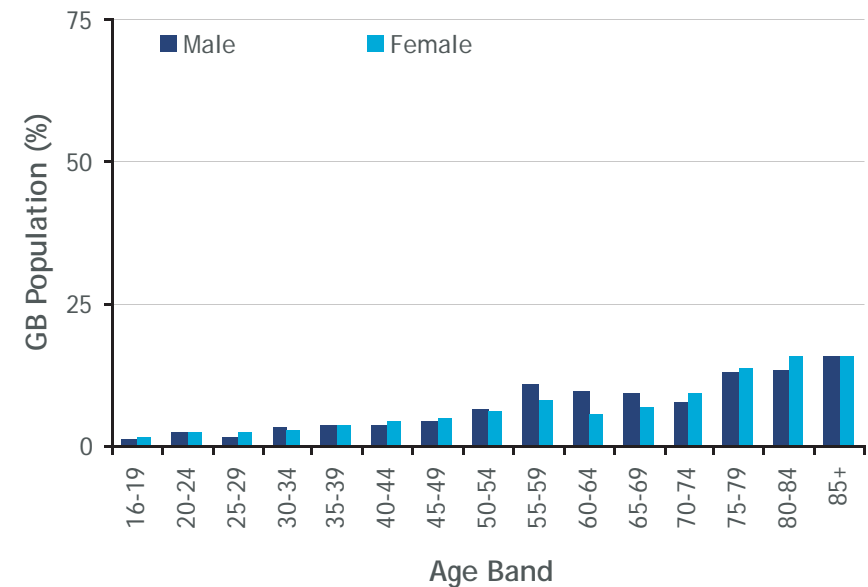
Cognitive Capability

A person's cognitive capability describes the combination of:

1. Communication
2. Intellectual Functioning

According to the Office of National Statistics, the total number of people in Great Britain identified as having reduced cognitive capability is over 2.6 million.

Cognitive Capability Loss - Variation by Age and Gender for Great Britain (%)



Note: Current research indicates that the incidence of cognitive loss is significantly higher in practice.

Source:
Disability in Great Britain (1999) Department of Social Security,
Corporate Document Services, London, UK

Capability



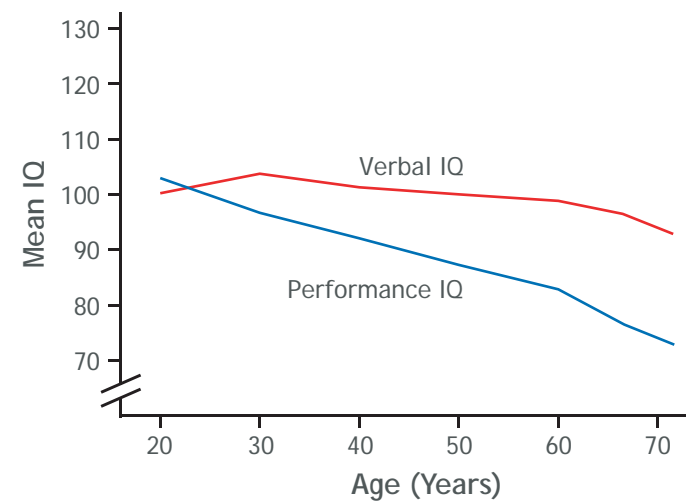
Intellectual Functioning

Intellectual Functioning

Intellectual functioning decreases with age, leading to reduced memory and reasoning ability.



Graph Showing Normal Deterioration of Intellectual Functioning with Age



Source:
Baddeley A D (1992) Your memory: a user's Guide
Penguin Books