IMPACT OF YOGIC EXERCISE ON BALANCE IN CLIMACTERIC WOMEN

CLIMACTERIUM AND MENOPAUSE

- MENOPAUSE – unique event in life of a woman

- CLIMACTERIUM – period several years before and after menopause

MENOPAUSE

- a woman is in menopause if there is an absence of menstruation for at least 12 months
- occurs between the age of 45 – 55, most often around the age of 51
- the age when menopause occurs has not been radically changed during the course of centuries

REASONS OF INCREASED INTEREST FOR CLIMACTERIUM

- increasing of life span
- increasing number of old women
- increasing number of diseases, number of affected and expenses of treatment

TYPICAL CLIMACTERIC HEALTH PROBLEMS

- menopausal symptom
- cardiovascular disease
- musculosceletal disease

MUSCULOSCELETAL PROBLEMS AND DISEASES

- back pain
- osteoporosis
- rheumatic illnesses and joint arthrosis

IN CLIMACTERIUM ALSO START TO APPEAR MORE SERIOUSLY:

- decreasing of muscular strength
- decreasing of joint mobility
- decreasing of sensory functions

FALLS

- 1/3 of people older than 65 years fall at least once a year
- definition: a person has fallen if she/he has found her/him self unexpectingly on the floor*;* on her/his knees, belly, side, back or bottom
- person can fall from standing position, from chair or from bed

CONSEQUENCES OF FALLS

- **injuries** are sixth most common reason for death among people older than 65
- **fear** against another fall
- **decreasing** of muscular strength, balance, physical activity
- **lost** of functional independence

FALLS – BALANCE – PHYSICAL INACTIVITY

- fall = lost of balance
- balance = motor skill
- with proper training it is possible to improve balance
- climacterium is final moment to start with physical activity

PURPOSE OF RESEARCH

Does regular practise of yoga improve balance of climacteric women?

METHODS
Subjects

- 17 climacteric women, who regularly practise yoga according to YIDL®
- 18 climacteric women, who don’t practise any organized physical activity

INCLUDING CRITERIA

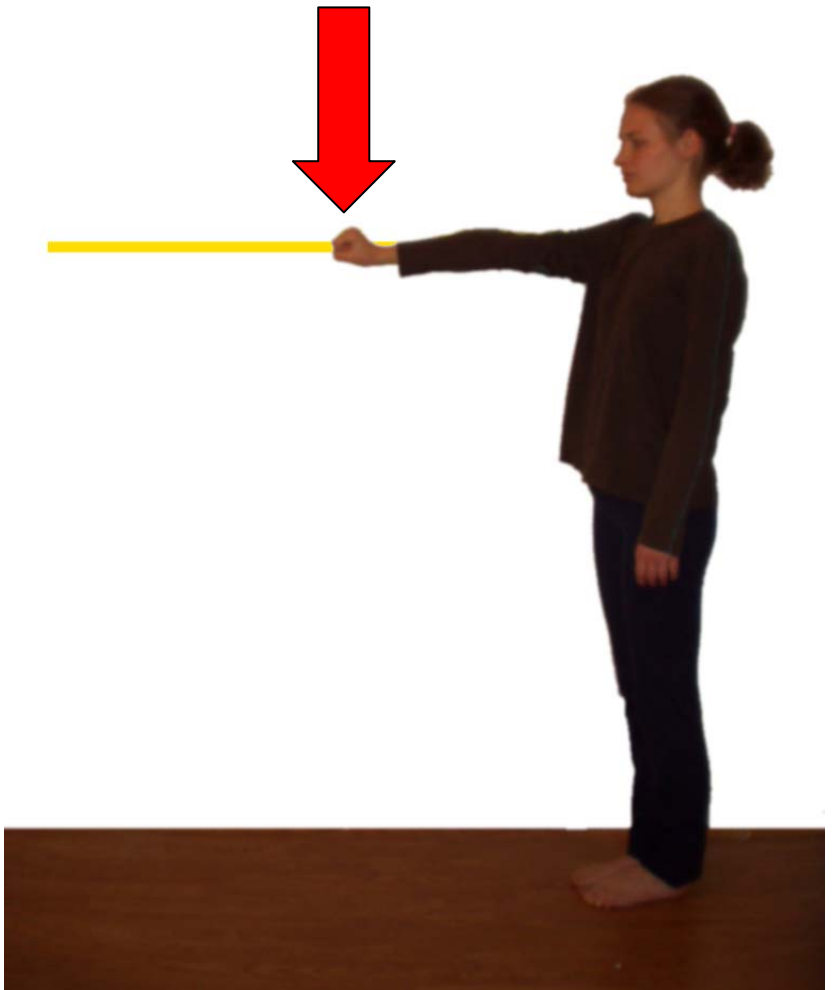
- age 45 – 60 years
- writing, willful permition
- written affirmation, that they have not been in menopause more than 5 years
- written affirmation that they are healthy, that they never had Acute Myocardial Infarct, that they take no medication
- have no dizziness, spinal problems, leg problems
- they live in an urban environment

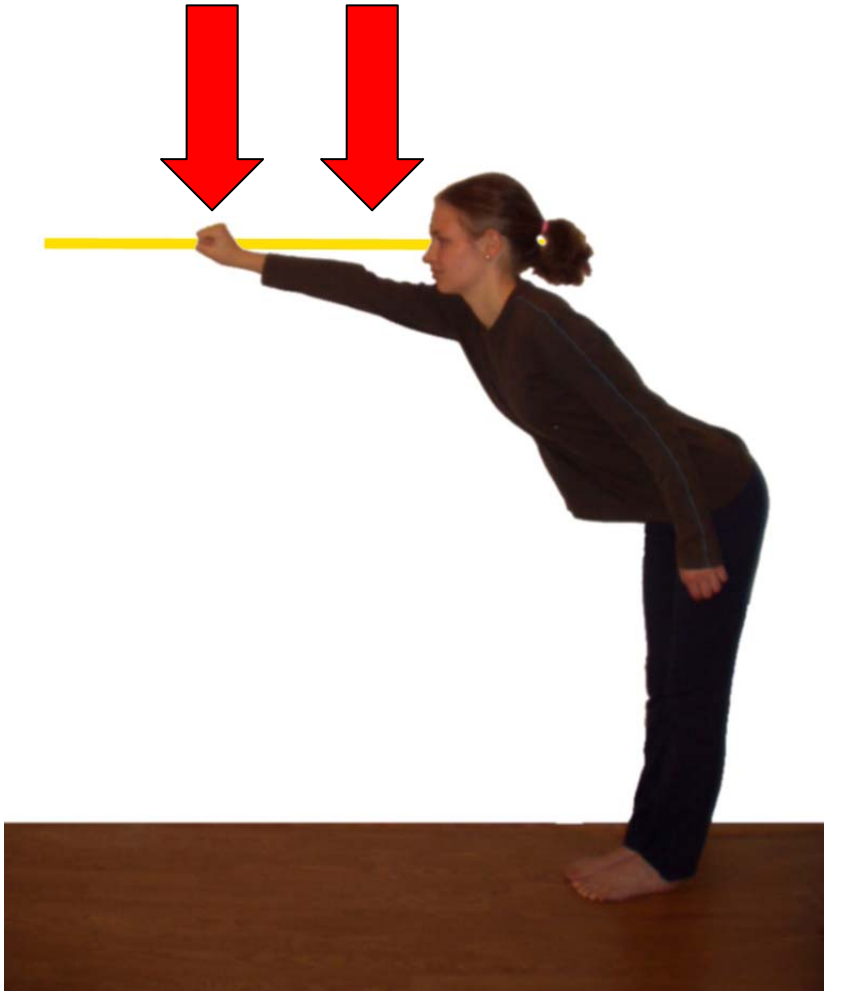
TESTING OF BALANCE

- Functional Reach Test
- Sharpened Romberg Test
- Single Leg Stance Test

TESTING OF BALANCE

Functional Reach Test





TESTING OF BALANCE

Sharpened Romberg Test

TESTING OF BALANCE

Single Leg Stance Test

STATISTICS

- Mann-Whitney U test
- Software: SPSS 11.5

ANTHROPOMETRICAL MEASUREMENTS

Among the groups there have been no statistically important differences considering:

- education (Mann-Whitney, p= 0.053),
- body hight (Mann-Whitney, p= 0.551)
- BMI (Mann-Whitney, p= 0.541)
- active group was statistically significantly older (Mann-Whitney, p= 0.046)

RESULTS

Functional Reach Test

non-active	37.24 cm
active	39.61 cm

Difference between groups
is not statistically significant
(Mann-Whitney, p= 0.488)

RESULTS

Sharpened Romberg Test

non-active	32.68 s
active	55.66 s

Active group have
statistically significant better balance
(Mann-Whitney, p= 0.002)

RESULTS

Single Leg Stance Test

non-active	10.22 s
active	29.00 s

Active group have
statistically significant better balance
(Mann-Whitney, p= 0.001)

LIMITATIONS OF THE RESEARCH

- small sample
- results of the research can not be generalised on men population
- testing has been performed only once
- non-randomised sampling procedures

CONCLUSION

- with physical activity balance can be considerably improved and the number of falls can be reduced
- climacterium is the final time to start with regular physical activity
- physiotherapists should promote physical activity (one of possibilities are YIDL techniques)