Using the Functional Fitness MOT with older people

Supporting materials from the Autumn 2013 series of one-day seminars

An opportunity for you

• UK Day for Older People (Oct 1st 2013)
  • [http://olderpeoplesday.co.uk/big-skills-share/](http://olderpeoplesday.co.uk/big-skills-share/)

• Functional Fitness MOT as BHFNC Contribution towards October 1st and Active Ageing Events
Resources available to support the Functional Fitness MOT

• Your delegate pack
• More available online at
  www.laterlifetraining.co.uk
  and
  www.bhfactive.org.uk
  as free downloads
• You will also need your own local resources

Session 1:

Introduction to the Functional Fitness MOT

• Raising awareness of functional fitness – an opportunity
• The UK CMO Guidelines for Older Adults and functional fitness
• Introduction to using the Functional Fitness MOT
3 Dimensions of Human Frailty

HUMAN FRAILTY

TIME

DISEASE

DISUSE

Spirduso, 1995

Centenarians

Population aged 100 years and over, UK, 1965-2010

Population estimate

Source: Office for National Statistics
Why active ageing?

- 40% of older people attending GP surgeries, and 60% of those living in residential institutions report ‘poor mental health’
- Being active increases engagement, improves confidence, resilience and control, reduces anxiety and depression.....as well as reducing symptoms of disease and improving function to help maintain independence.
- It is NEVER TOO LATE! - In 3 months a 65-95 year olds can rejuvenate 20 years of lost strength.


Making activity choices.....

- >3 hrs per week targeted exercise
  - Heart Attack - 3 x less likely
  - Hip fracture - 2 x less likely
- Also reduces risk of high blood pressure, obesity, stroke and diabetes and improves quality of life with medical conditions
- >3 hrs per day on your feet
  - Reduced risk of falls and fractures
- Active people are more likely to have better mood, be less anxious, have better memory, sleep better and have more social contacts

Physical Activity benefits....

- Psychological
  - Reduce Anxiety, depression, fear of falling; Improve sleep
- Physiological
  - Maintain bone density, ability to perform everyday activities, reduce breathlessness and stiffness; reduce effects of disease and falls
- Psychosocial
  - Reduce Isolation, Increase self efficacy, social contacts, peer support, playing with grandchildren, using the bath
- Even the very frail
  - DVT, constipation, transfer skills

Where does it all fit?

Engaged in life
Purpose, meaning and occupation
Any bodily movement
Planned Structured Repetitive

Philosophy, purpose, skills, outcomes and prejudices
Clarity in Active Ageing - confusing concepts?

Activity  Physical activity  Exercise

“Life in your years”

- requires more than just stamina and energy, requires strength and balance to feel confident in all other activities you go on to do....
A different “spin” on fitness?

• Strength to lift household objects or get up from the floor
• Flexibility to wash hair, tie shoes
• Balance and agility to climb stairs
• Co-ordination and dexterity to open a door with a key
• Endurance to walk to the shops

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Enough strength and balance to COPE with a risky environment?
**Why Fitness MOTs?**

- Highlight the new Physical Activity Guidelines with older people
- Highlight the importance of the components of fitness, particularly strength and balance
- Use as a motivational tool to engage older people in programmes and activities

**History of the MOTs**

- Developed in 2011 for the Glasgow Science Festival and Active Ageing Week Glasgow
- Piloted with 60 older people in Govan Shopping Centre and the Arc Leisure Facility at GCU
- Introduced at the 8th World Congress on Active Ageing (Glasgow) 2012, with 250 older people and their carers
- Currently being run in Paisley with ROAR (Reaching Older Adults in Renfrew) older volunteers – 2 occasions over 3 months and looking at changes
Utilising what works

- Fun or intriguing activity....what is an MOT for people?
- Different images to attract people in advertising
- One to one interviewing
- Time to understand different components of fitness
- Time to discuss barriers, motivators & solutions
- Using normal data sets from large studies
- Personalised information to take away and digest
- Follow up information (local) on how they can find out more

What it is NOT

- A research tool
- An evaluation tool (except....)
- An alternative for a pre-exercise assessment
- An alternative to offering tailored exercise (don’t just assess, do!)
UK Physical Activity Guidelines

How much physical activity do people need to do to keep healthy?

Evidence into practice - Reaching the public?

CMO Physical Activity Guidelines for Older Adults

What are the key elements of the 6 UK Physical Activity Guidelines for Older Adults?
Older adults – Moderate intensity – accumulating 150 minutes per week

OLDER ADULTS (65 +)

• Older adults should aim to be active daily.
• Over a week, activity should add up to at least 150 minutes (2 ½ hrs) of moderate intensity activity in bouts of 10 minutes or more.

Older Adults – Sedentary, Strength and Balance

• All Older adults should minimise the amount of time spent being sedentary (sitting) for extended periods.
• Older adults should also undertake physical activity to improve muscle strength on at least two days a week.
• Older adults at risk of falls should incorporate physical activity to improve balance and co-ordination on at least two days a week.
Strength & Balance

- Necessary for independent living, use of public transport and getting to places to be active!
- Necessary to prevent falls
- Strength (& size of muscles) necessary to fight infections, use the bath and stairs, play on the floor with grandchildren and get up off the floor!
- Balance necessary to prevent a trip, mobilize on uneven ground, get dressed and use public transport

Sedentary Behaviour

- No standing activity leads to active loss of bone and muscle
  - 1 wk bed rest $\downarrow$ leg strength 20% & spine bone mineral density 1%
  - 3 wks bed rest $\downarrow$ aerobic capacity equivalent to 30 years of ageing
- Nursing home residents and hospital patients spend 80-90% of their time seated or lying down

How long do you spend sitting every day?

Krolner 1983; McGuire 1966, 2001; Tinetti 1988; Skeikon 2001; Beyer 2002
70 yr old woman, active, strength-trained  
70 yr old woman, sedentary

Size difference is equivalent to a 30 year old (L) and an 70 year old (R) 

(Adapted from Sipilä & Suominen Muscle Nerve 1993;16:294)

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Prevalence of Sitting in Older Adults

![Graph showing prevalence of sitting hours per day among older adults.](image)

- N = 661,125
- Compared to <2hrs, >4hrs TV viewing:
  - 46% ↑ risk of all cause mortality
  - 80% ↑ increased risk with CVD mortality

(Dunstan, et al., 2010)

With thanks to Juliet Harvey, Seb Chastin, GCU
**Headlines – CMO guidelines**

- Some physical activity every day
  - *Accumulating* 150 mins moderate activity per week
- Activity to improve strength x 2 per week
- Activity to improve balance x 2 per week
- Reduce sedentary (seated) behaviour

- Can we get this message across to older people with targeted awareness raising?

CMO Guidelines 2011;
BHF NC PAH Evidence Briefing 2012
Interpreting the guidelines
BHFNC Resources

The Actives
Interpreting the UK physical activity guidelines for older adults (65+)
Guidance for those who work with older adults, described as active

In Transitions
Interpreting the UK physical activity guidelines for older adults (65+)
Guidance for those who work with older adults, described as in transition

Frailer, older people
Interpreting the UK physical activity guidelines for older adults (65+)
Guidance for those who work with frailer, older people

Advertising the MOT

Is it about time you had a Fitness MOT?

We are offering a free fitness check up and activity advice to all aged 60+

APC Health and Fitness Facilities
Glasgow Caledonian University
Crescent Road
Glasgow G4 0RA

Tuesday 12th June
9.30am - 12.00pm

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Glasgow Caledonian University
Crescent Road
Glasgow G4 0RA

Tuesday 12th June
9.30am - 12.00pm
On the day

- Literature and information (and preferably people to talk with) on local opportunities
- Enough copies of Fitness MOT for potential number of participants
- Local physical activity co-ordinators / PSIs / personal trainers / physios... to supervise and document the results and to ensure tailored advice (medical conditions etc)
- Circuit approach to MOT tests
- Other opportunities (podiatrist, optician, BP...)
- Sit down quiet area for discussion

Equipment needed

- Weighing Scales
- Height Scale
- Handgrip Dynamometer (x2)
- Stop Watch (x4)
- Clicker to measure laps (x 3)
- Tape measure (to measure distance on floor)
- Hard long wooden ruler (to measure reach) (x2)
- Bollard (x2)
- Small cones (x6)
- Weight conversion chart
Personalised take home information

Circuit approach

- Weight
- Height
- 30 Second Chair Rise
- Chair Sit and Reach
- Back Scratch
- 8 Foot Up and Go

Lower limb strength & Endurance

Flexibility

Balance
Circuit approach

- **Balance**
  - Single Leg Stance
- **Strength**
  - Handgrip Strength
- **Endurance**
  - 6 Min Walk Test
- **Physical Activity**
  - Self reported PA

Discussion about results and Action Plan

Data compared to “peers”

- Each test explains reason
- Gender specific
- Actual data marked on graph and discussed
- Will do well on some things and not others
Let’s have a go!

- A run through each test
- Work in pairs – one is “tester” one is “older person” – then swap!
- Tests do not have to be done in a set order, make use of the room
- Acquaint yourself with the protocol and then do test – mark on graph
- Keep hold of the test sheets for later session on having the conversation!

Session 2:

Implementing the Functional Fitness MOT

- Practical workshop on implementation
- Participant Q and A
Session 3:
Guiding the participant towards action

• Interpreting and communicating the Functional Fitness MOT results
• Having a conversation about becoming active.

Personalised take home information
Interpreting the results

This is personal so make it personal!
Start with the positives!

You need time to discuss and share
Personal reminders

- You scored well on the grip strength, why do you think that is? What job or activity did you do in the past that might....
- Do you remember when you were doing the Chair Rises? The feeling in your thighs? This shows you were doing something that WILL improve strength of the muscle that is warm and wobbly....
- The sit and reach showed that perhaps more flexibility would assist your walking because ........

What needs some work and why?

- Lower limb strength and stamina not too bad
- Balance work needed to reduce risk of falls
- Flexibility needs improving for better walking
The physical activity profile

• What did it tell you about the participant’s lifestyle and physical activity/sedentary patterns?
• What emerged as opportunities and what emerged as barriers?

Strategies to change?

• How much time do you have?
  1. Some information, signposting and direction about what to do
  2. Using a brief intervention eg. *discussion about likes, dislikes, local opportunities and preferences*
  3. Ask, tell, discuss strategy
  4. Entering into a behavioural change process eg, *lifestyle, health coaching, peer mentors, Solution Focussed Approaches, motivational interviewing*

Depends upon time and human resources available, eg skills and follow up contact
Information and signposting

- Realistic choices and accessible local opportunities
  - Indoor or outdoor, home or group, mixed or single sex?
  - Quality of provision
- Time constrained? Maybe need activities that
  - can be incorporated into daily life (sit to stands in adverts, toe raises while waiting for kettle to boil)
  - Concentrate on breaking up long periods of sitting first if being “more active” is not likely!
- Assess motivation and self efficacy, (stage of behaviour change?)
- Identified barriers?
  - someone to go with?
  - medical conditions that limit activity or may require specialist advice?
- Discover solutions/opportunities!

Task - access and choice

List 5 opportunities within a 15 minute walk/10 min bus ride (from) the person’s home that will include some degree of strength and balance work within the programme and …..

- Is in a good quality facility
- Has an experienced/qualified/empathetic teacher/instructor/leader
- Is at a sustainable price
- You are confident to recommend

How do you know?
Access and choice

• For those who prefer to be active at/from home
• Exercise booklets and DVDs
• Mainly as support, motivation more challenging, perhaps two or three activities to try?
• 20 minute threshold

Making a decision to change - benefits and cost

Our reasons why
Get out of the house and get some fresh air.
(Might) lose some weight
Meet some new people
Will help with my blood pressure

Their reasons why not
Difficult to get into the mood
Shopping will take longer
I’ve got a stiff knee
There are other things I want to do

(Janis and Mann 1977)
Assessment of Importance/motivation

How important is it to you to change in this way? If 0 was ‘not important’ and 10 was ‘very important’, what number would you give yourself?

“Tell me why you put yourself here at 6 on the scale and not ...?”

Assessment of confidence (self-efficacy)

If you decided right now to do more physical activity how confident do you feel about succeeding with this? If 0 was ‘not confident’ and 10 was ‘very confident’ what number would you give yourself?

“So, what do you think it would take to move you up from a 2 to a score of 3 or 4?”

“Looks like you’re pretty confident already - why so high?”
Simple strategies – Ask – Tell - Discuss

Ask – open ended questions (about you)

Tell – what’s on, what would count

Discuss - who could help, what is realistic, what would you like to happen?

We have provided some questions you can use

5 steps to Action planning

Step 1. Why - Reasons to be active
Step 2. Goals
   What do you want to achieve?
   Detailed planning, what, where, when
Step 3. Support – who can help you?
Step 4. Coping strategies – What might get in the way?
Step 5. What else do you need to do?
   Works with this and many other behaviours
Key learning 1 - motivation

• Positive attitude towards physical activity and a belief in the benefits of physical activity
• High level of self-efficacy (belief in one’s ability to be active)
• Activities that are consistent with personal goals and lifestyle (identity)
• Will be enjoyable (mastery and control, not happy hours)
• Social support/approval from friends, peers and family (significant others)
• Easy access to physical activity (convenient)
• Tangible rewards (it will make a difference)

(BHFNC 2012)

Key learning 2 - participation

• Convenient /attractive walking opportunities, with places to sit when a rest is needed
• Age-appropriate community based programmes
• Accessible groups and classes
• Opportunities for social interaction
• Experienced, qualified and empathetic leaders, instructors and teachers
• Try out/experience new activities as well as continuing with those they enjoy.
Key learning 3 – Strength and balance

- Don’t mention the F Word
- There is evidence that older people are not motivated to take part in strength and balance activities as a means of avoiding falls.
- Older people will undertake these activities if they know that it will help to maintain their independence and allow them to remain engaged in activities that are integral to an active later life.
- A belief that they are the kind of person who should do these activities (self-efficacy)
- A belief that other people think you should do these exercises (self-image and social approval)
- A belief that they will be successful and that these activities would be enjoyable (mastery)


Working towards achieving the guidelines

Increased benefits

Meeting the guidelines

Starting from where?

Increased physical activity
Session 4:

Next steps

- Signposting and supporting resources
- Running a Functional Fitness MOT event

http://www.laterlifetraining.co.uk/functional-fitness-mots-for-awareness-raising/
http://www.bhfactive.org.uk/older-adults/index.html

BHF NC Resources
BHF NC Resources

Making the case to your bosses

Making the case for physical activity

Economic costs of physical inactivity

Factors influencing physical activity in older adults

Physical activity interventions for older adults

Current levels of physical activity in older adults
http://www.active-ageing-events.org.uk/home/index.html

http://www.laterlifetraining.co.uk/home-exercise-booklets-free-to-download/
Running an MOT Event

• Marketing and reaching those hard to reach!
• Space and access requirements
  – Eg. 6 min walk test results differ depending on space!
• Go to people rather than expect them to come to you?
  – Shopping centres
  – Churches
  – Day Centres
  – Sheltered Housing
• Enough manpower and friendly faces
• Water before tests - Refreshments during consultation
• Peer mentors to bring empathy and successes!

Other thoughts.....

• PAR-Q before they start?
• Who is liable if there is an event? Risk assessment.
• Other people delivering the awareness raising?
  – Other PA, fitness, health, social care professionals; Peer mentors
• Numbers of people needed to run the awareness raising?
  – People stationed at circuit slots or personalised one to one advice throughout
• Follow up
  – Data protection issues vs known benefit of follow up
Other thoughts.....

• UK Day for Older People (Oct 1st 2013)
  • [http://olderpeoplesday.co.uk/big-skills-share/](http://olderpeoplesday.co.uk/big-skills-share/)

• Part of wider health fair?
  – Podiatry – to check over feet and footwear
  – Ophthalmology – to check over vision or discuss glasses
  – Blood pressure checks
  – Nutritionist – diet and nutrition
  – ??

• Onward referral options
  – Any of the above, falls services etc.

Conclusions

• Importance of different components of fitness to health and independence in older age
• Awareness raising important but literature alone will not work
• Personalising the advice is vital
• All resources are available to localise
  – Circuit cards, personalised MOT booklets
• Important to also raise awareness with the professionals you meet!
Conclusions

• Chair based exercise must not be the default for older people – need to move towards balance work in standing and strength work in standing and encourage breaking up of long periods of sitting

Final Thoughts

• More information at
  • www.laterlifetraining.co.uk
  • www.bhfactive.org.uk
  • www.activeageingevents.org.uk

• We will be in touch to see how you have got on and implemented these?

• Later Life Training