



McArdle's
Annual Conference
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McArdle's Walking Test

1. Results Oct. 1999 – Apr. 2004
2. Review Muscle Workings

Dr John Buckley
AGSD V Exercise Physiologist



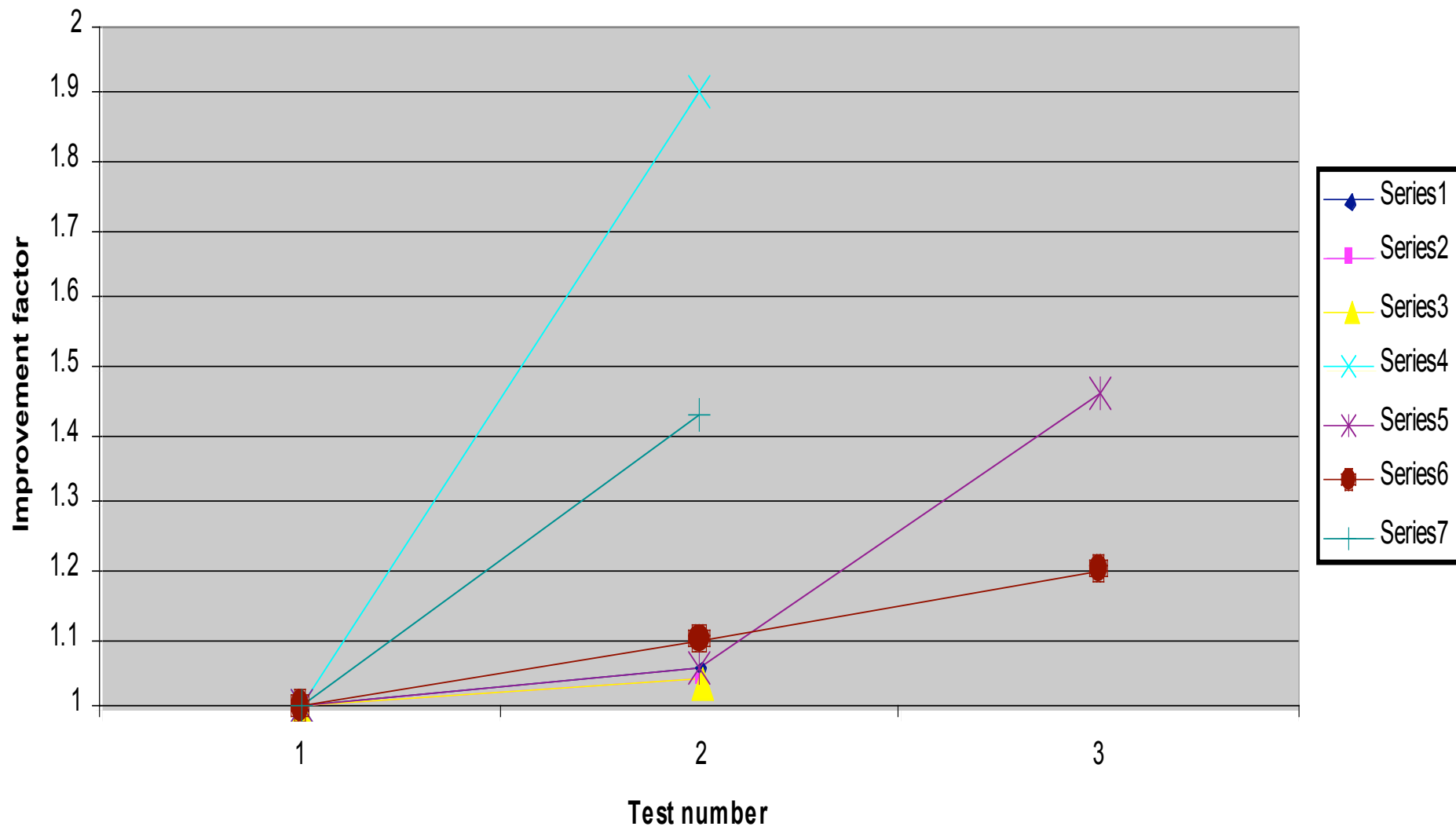
Team Acknowledgement

- ✦ The Patients & AGSD
- ✦ Dr R. Quinlivan (Oswestry)
- ✦ Prof. R.J. Beynon (Univ. Liverpool)
- ✦ Prof. J. Sim (Keele Univ)
- ✦ Prof. R. Eston (Univ. Wales, Bangor)
- ✦ Dr. D. Short (Oswestry)
- ✦ Jenny Whittall (Neuro Centre, Winsford)
- ✦ Ruth Lambert (Neuro Centre, Winsford)

Walking Results

- ✦ October 1999 to April 2004
- ✦ 39 Patients
- ✦ 32 Patients tested at least once
 - ✦ 9 performed 2 tests
 - ✦ 5 performed 3 tests
 - ✦ 3 performed 4 tests
- ✦ 17 patients analysed for changes in walking performance

McArdle's 12 min walk test

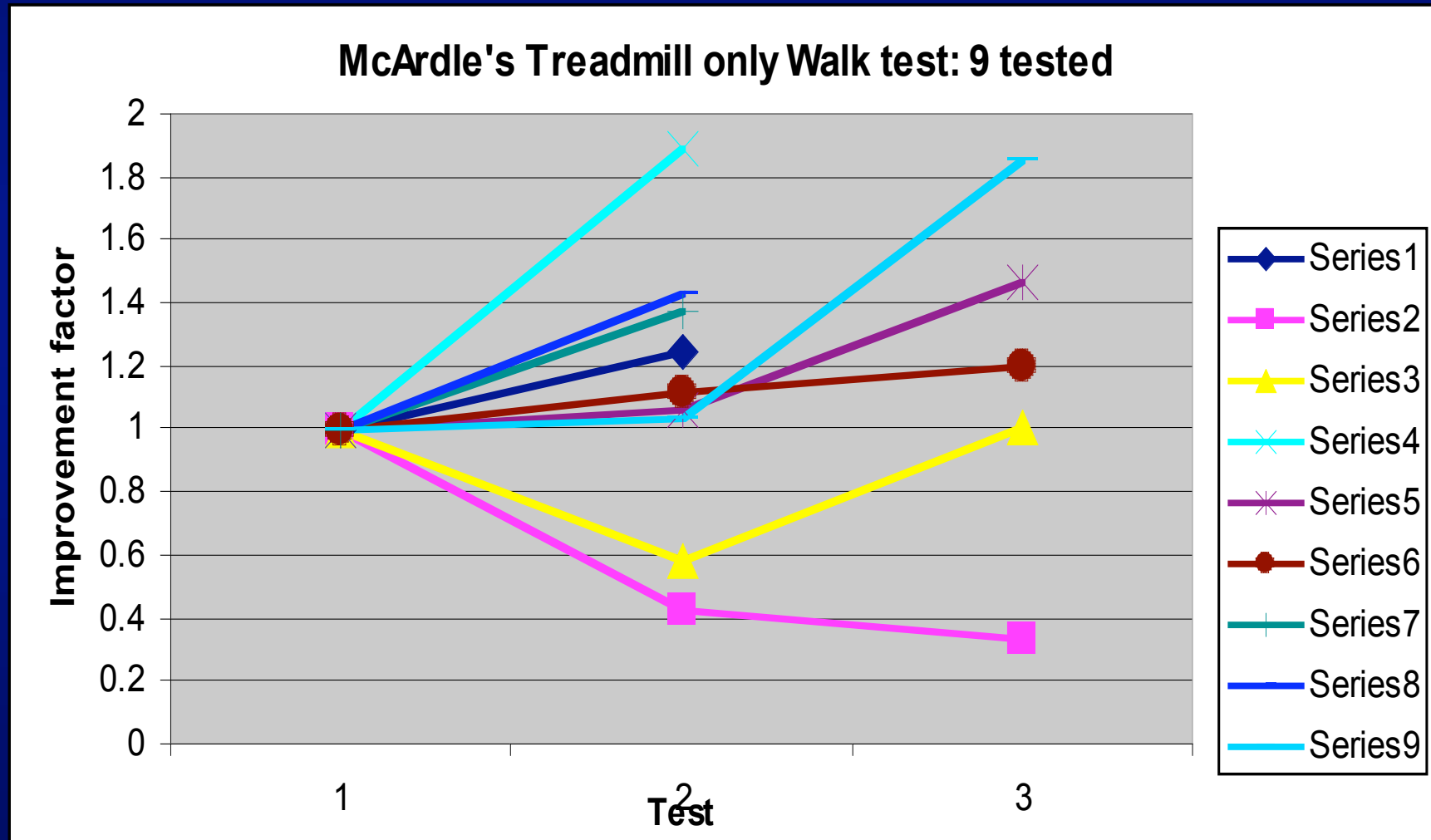


Summary

- ★ 7 of 17 improved (5 to 90% improvement)
- ★ 3 of 17 maintained level
- ★ 7 of 17 declined

Reasons for some people's decline

☀ Corridor to treadmill ?



Reasons for some decline

- ✦ Corridor to treadmill
 - ✦ Not sure this can explain the “large” decrease in some of the patients
- ✦ McArdle’s day to day “up-and-down-ness”
- ✦ Other health problems dependent or independent of McArdle’s
- ✦ If you don’t use it you lose it (inactivity)
 - ✦ 1-2% decline p.a. in fitness in normal adult pop
 - ✦ in McArdle’s perhaps has more of an effect than in healthy individuals, especially the low fit

Plan of action

- ☀ Next clinic, review your individual walking performances and individually qualify why you improved or decreased
- ☀ Whether you increase, decrease or stay the same, it's also about managing your condition on exertion (strategies to prevent pain, proper activity pacing)
- ☀ Some further thoughts on the 2nd Wind
 - ☀ But first review how the muscle works

Recommended therapy

R.G. Haller. *Arch Neurol* 57: 923-924, 2000

Exercise training

Central
CV Fitness
= Increased
O₂ delivery
Blood borne
FFA, Gluc'

Enhances
Fat
Metabolism

Reduces
Glycogen
need

Dietary control

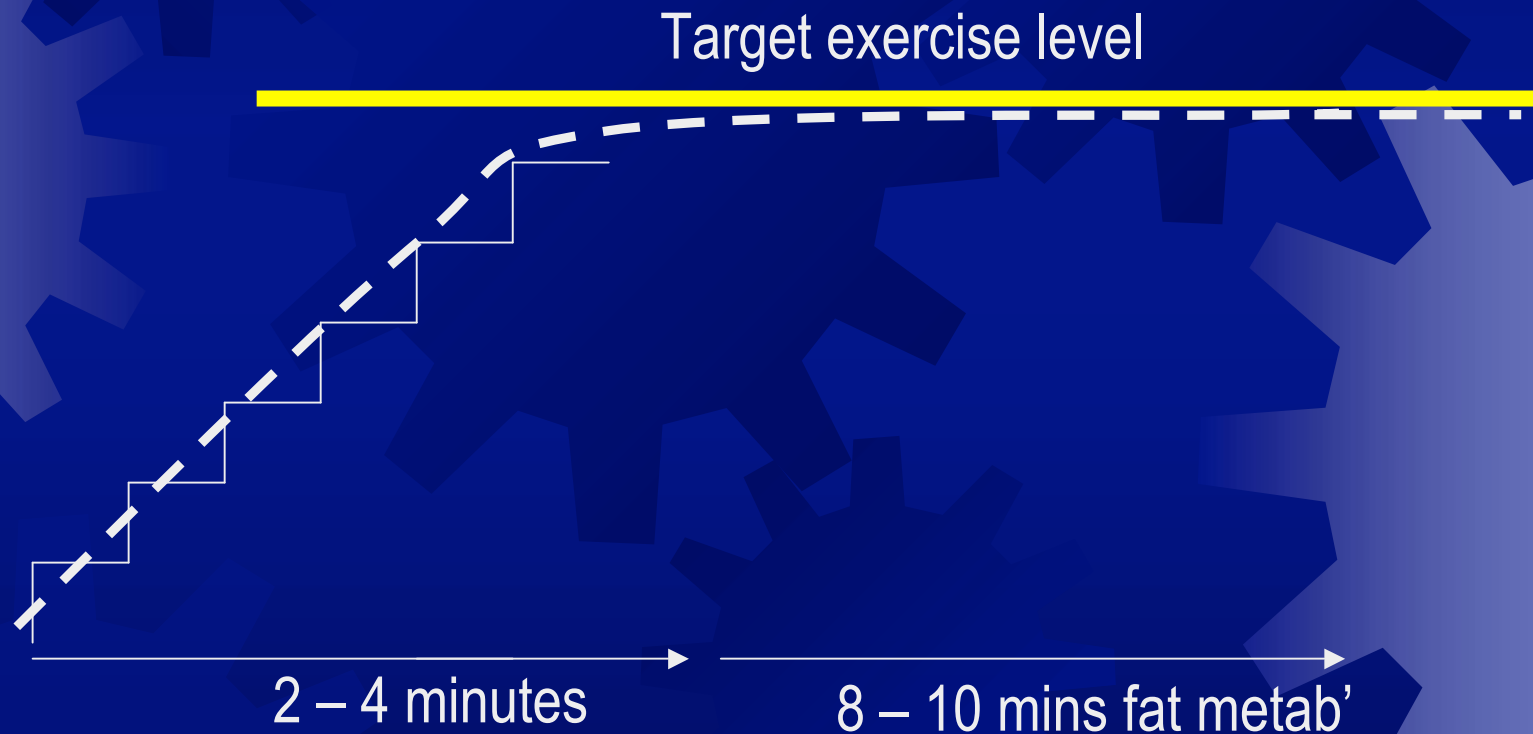
Practiced
physical activity
strategies

Early "second wind"
Prevent contracture



Some thoughts on the second wind

Healthy individual; graded warm-up, smooth, little discomfort
Effects of 2nd wind not noticeable



Some thoughts on the second wind

McArdles?

Graded warm-up, smooth, little discomfort

Effects of 2nd wind not noticeable



Some thoughts on the second wind

McArdles patient with exercise training
Achieves sooner and smoother 2nd wind transition

Target exercise level

