

RESEARCH ON OUR PHYSICAL HEALTH

HEALTH PROFESSIONAL WORKSHOPS SUMMARY

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PRESENTATION TOPICS

- Update on Clinical Practice Workshops and Polio education in Australia
- What do we know about maintaining health of our bodies?
- Emerging trends and current research related with Polio
- How does this relate to a history of Polio?

CLINICAL PRACTICE WORKSHOPS



Find a Health Professional

Search registered health professionals to find polio-knowledgeable health professionals in your area.

PLANS FOR THE FUTURE



'Next Generation' Polio Survivors

PLANS FOR FURTHER EDUCATION



**GETTING ASSESSMENT
AND PRESCRIPTION
RIGHT**

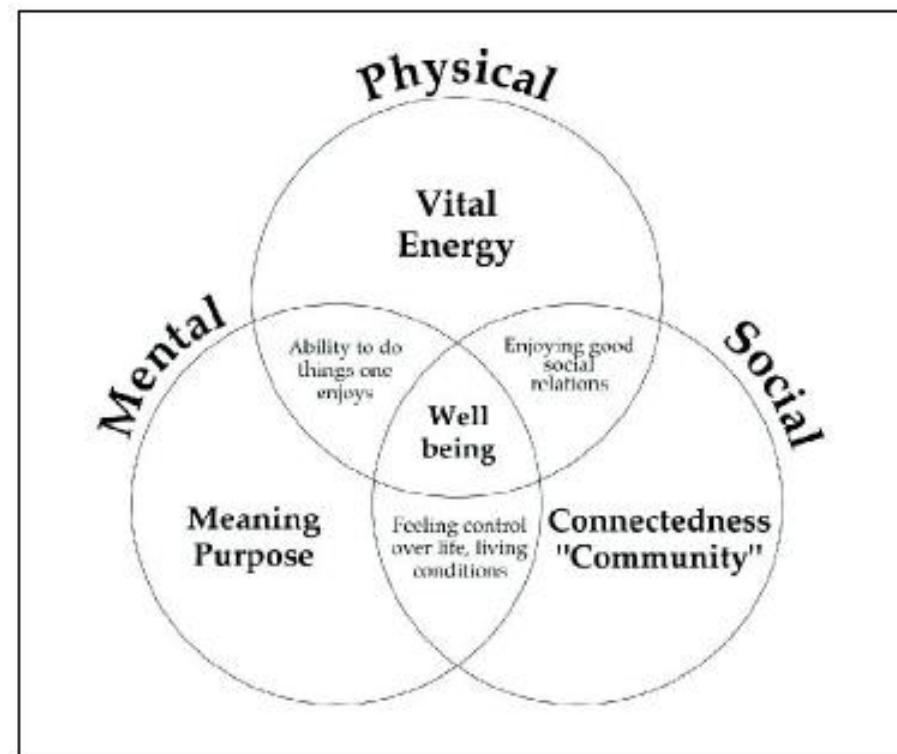


WHAT IS HEALTH?

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.



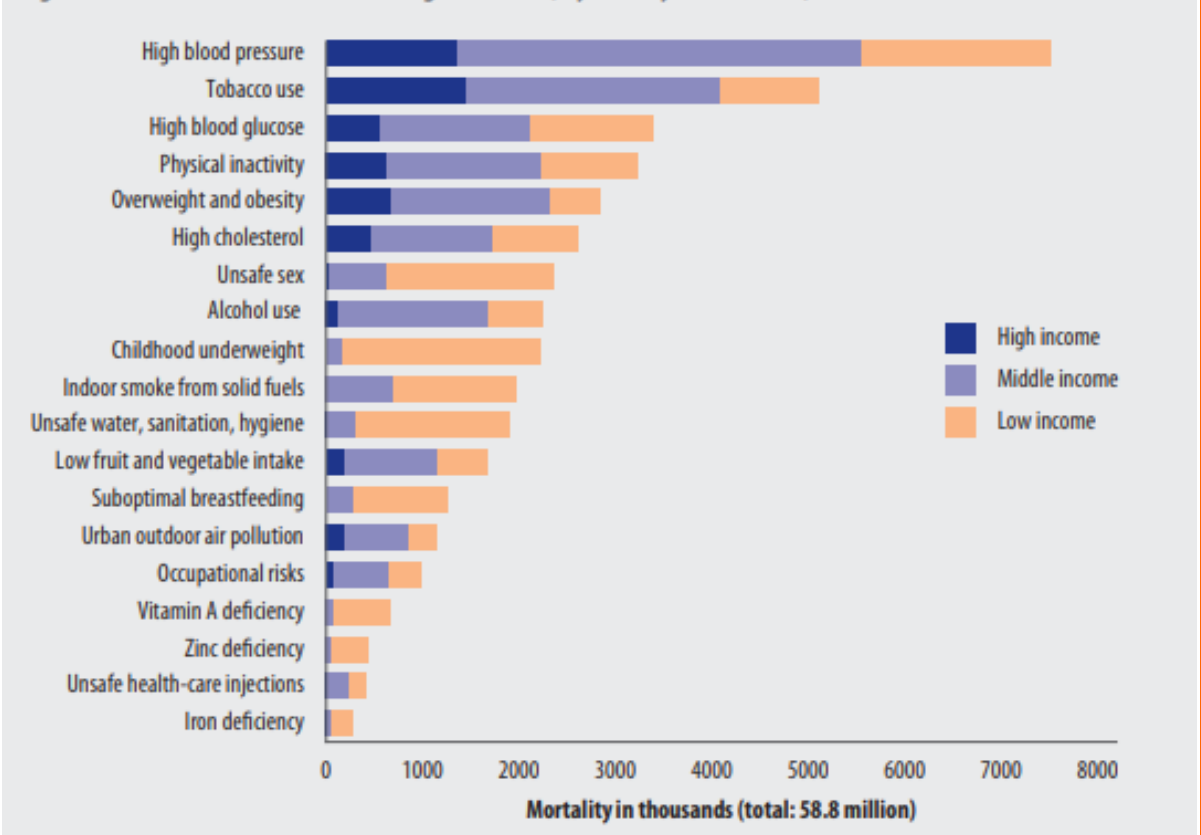
Figure 1. Dimensions of Health and Wellbeing



LEADING CAUSES OF MORTALITY (IN THE 1ST WORLD) ?

1. High Blood Pressure
2. Tobacco use
3. High Blood Glucose
4. Physical Inactivity
5. Overweight and Obesity

Figure 6: Deaths attributed to 19 leading risk factors, by country income level, 2004.



THE BEST AVAILABLE MEDICATION?



“What if there was one pill that could prevent and treat dozens of diseases such as diabetes, hypertension and obesity”...

- *Dr Robert Sallis*

PHYSICAL ACTIVITY GUIDELINES

PHYSICAL ACTIVITY

- Any physical activity is better than doing none. If you currently do no physical activity, start by doing some, and gradually build up to the recommended amount.
- Be active on most, preferably all, days every week.
- Accumulate 150 to 300 minutes (2 ½ to 5 hours) of moderate intensity physical activity or 75 to 150 minutes (1 ¼ to 2 ½ hours) of vigorous intensity physical activity, or an equivalent combination of both moderate and vigorous activities, each week.
- Do muscle strengthening activities on at least 2 days each week.

SEDENTARY BEHAVIOUR

- Minimise the amount of time spent in prolonged sitting.
- Break up long periods of sitting as often as possible.

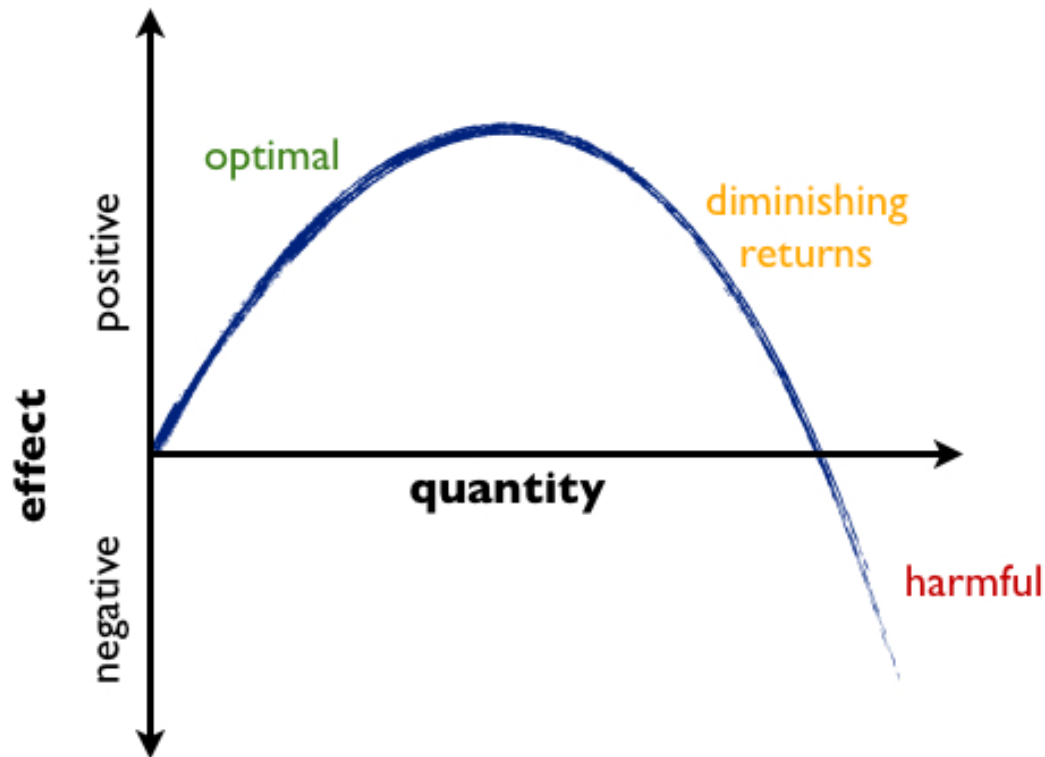


OVER 65 GUIDELINES

1. Should do some form of physical activity, *no matter* what their age, weight, health problems or abilities.
2. Be active every day in as many ways as possible, that incorporate fitness, strength, balance and flexibility.
3. Accumulate at least 30mins of moderate intensity physical activity on most, preferably all, days.
4. If you have stopped being active, or are starting a new physical activity, start at a level that is easily manageable and gradually build up the recommended amount, type and frequency of activity.
5. If you enjoy a lifetime of vigorous physical activity, carry on doing so in a manner suited to your capability into later life, provided recommended safety procedures and guidelines are adhered to.

EXERCISE (ACTIVITY) DOSE-RESPONSE

Exercise as a “Dose”



hypertensive subjects. Moreover, even 30 to 60 min of exercise per week were sufficient to reduce both systolic and diastolic BP in the patients with essential hypertension.

results of their exercise dose-response analyses, Lee et al. (1) and Wen et al. (2) both argue that an exercise prescription of 5 min of running or 15 min of walking per day can positively influence cardiovascular mortality. The idea is to encourage

eliciting PEH until the following morning. Miyashita and colleagues [66] found that even shorter bouts of aerobic exercise (10 3-min bouts) interspersed throughout the day were as effective as a 30-min bout of continuous aerobic exercise in eliciting PEH.

GUIDELINES...



Dr. Eric L. Voorn
Postdoctoral researcher



Prof. dr. dr. Frans
Nollet
Professor, Department Head
Rehabilitation AMC



Dr. Fieke S. Koopman
Rehabilitation doctor,
researcher

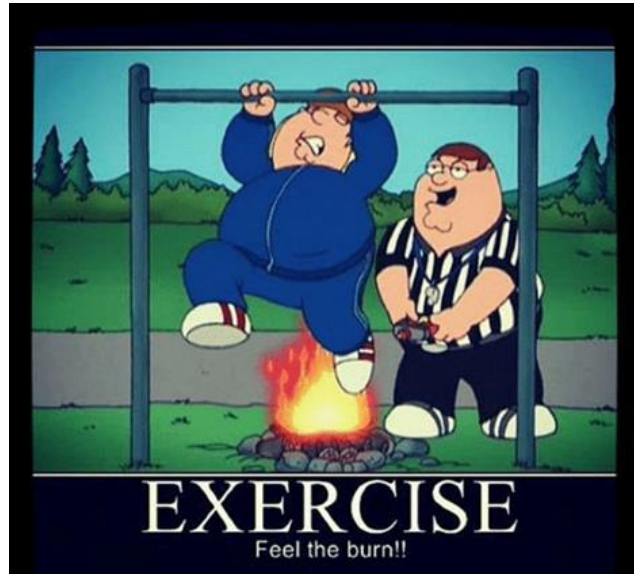
Something is
better than
nothing

WHAT DOES A POLIO SURVIVOR DO?

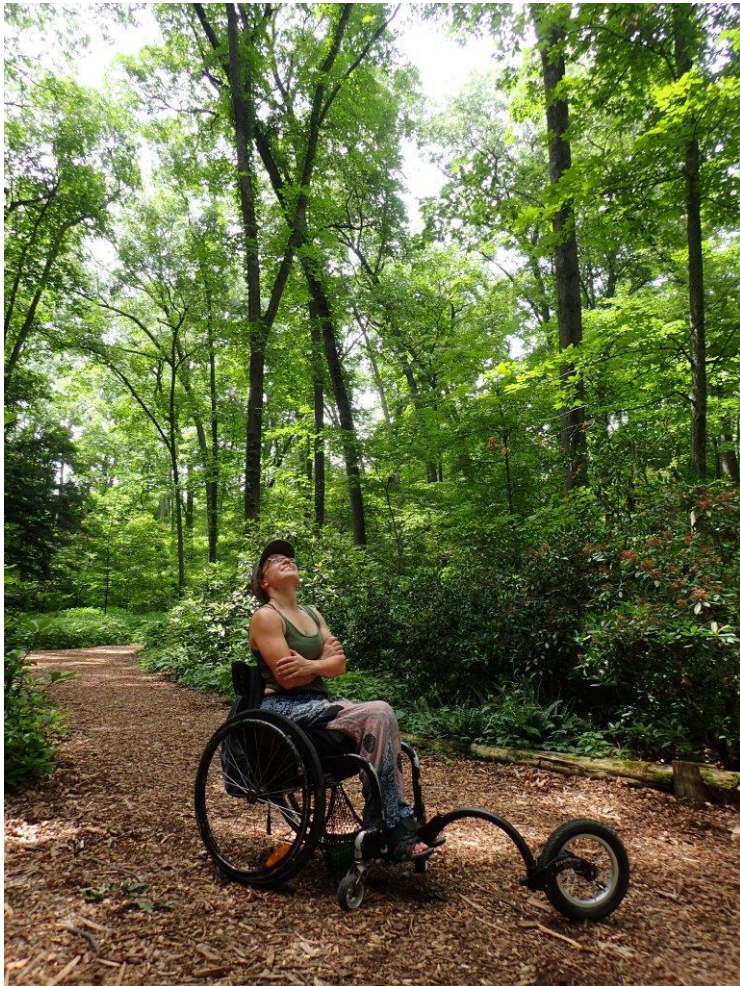


- Potential of different strength (everywhere in the body)
- Check strength every 2 – 5 years
- “Manual Muscle Chart”
 - Get a copy!
 - Find out the strength scale used...

THE RIGHT ACTIVITY IS KEY



THE MIND AND THE BODY



WHAT DEFINES YOUR LIMITS?



GENERAL PRINCIPLES FOR EXERCISE

- Start light; consider your goals
- Keep intensity/exertion low: 2-4/10
- Learn signs of fatigue and STOP (then reduce)
- Short bursts of activity with frequent rest works best
- Think about overall activity – anything that involves muscle contraction

SEEKING OUT A PROFESSIONAL

- Exercise Physiologist, Neurological Physiotherapist for exercise advice
- Physiotherapist for treatment/advice on causes of pain
- Occupational Therapist for advice on aids and energy conservation
- GP... Help us to help others 😊
- Rehabilitation Physicians – overall medical management



Find a Health Professional

Search registered health professionals to find polio-knowledgeable health professionals in your area.

healthdirect
Australia

WHAT IS BEING RESEARCHED?



14:35 Kristian Borg POST-POLIO - FROM CLINIC TO GENETICS	14:55 Loubiri Ines PSYCHOLOGICAL PROFILE IN TUNISIAN POST-P
15:05 thefenne laurent POLIOMYELITIS: IS THE CALCULATED BASAL ME	15:15 Claire Formby COMPLIANCE WITH, AND BARRIERS TO ACHIEVI
15:25 Antoine Leotard SLEEP DISORDERED BREATHING IN ADULT WITI	15:35 Mark Lissens CORRELATION BETWEEN SARCOPENIA AND OSTI
15:45 Anne Laure Roy LOW BACK PAIN IN ADULT PATIENTS WITH SEQI	15:55 Yasuyuki Matsushima EFFECTS OF TRANSCRANIAL DIRECT CURRENT S

INFLAMMATION & IVIG



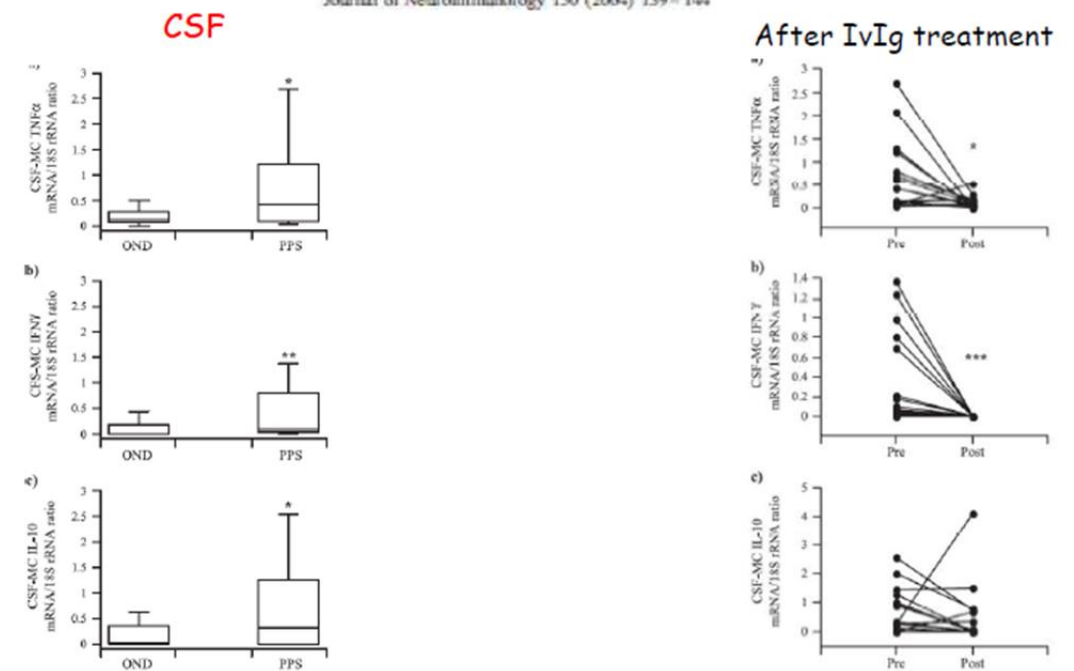
RESPONDERS, OUTLIERS AND NON-RESPONDERS...

- Within trials for IvIg
 - 30% have responded very well
 - Fatigue
 - Quality of Life
 - Stability in function
 - 30% haven't responded at all
 - Did they have PPS?
 - 30% dropped in function
 - Why?...

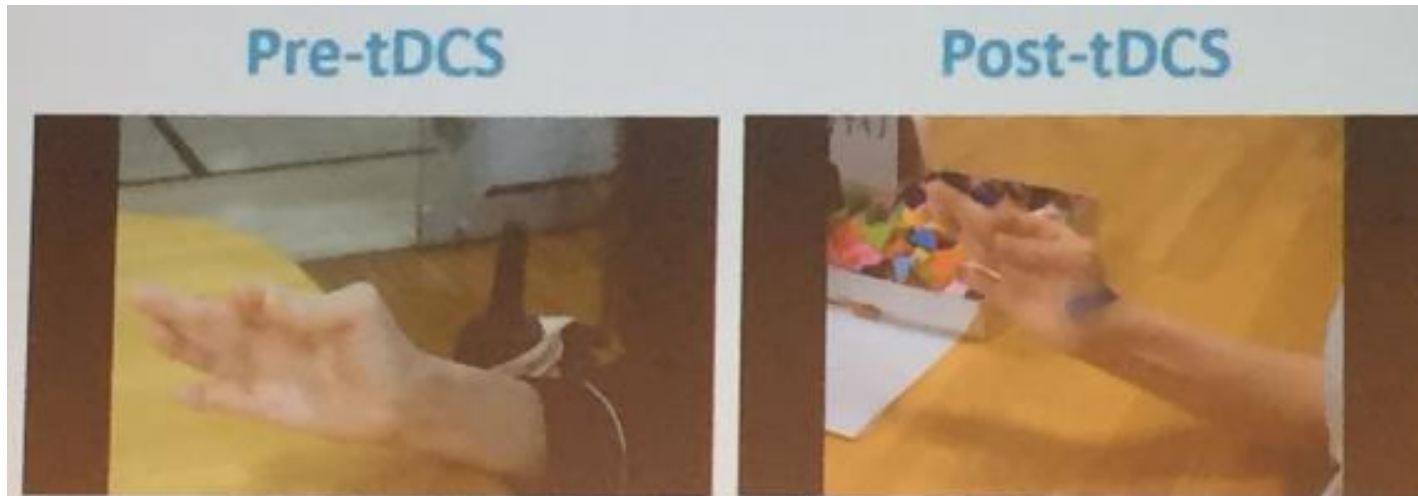
Prior poliomyelitis—IvIg treatment reduces proinflammatory cytokine production

Henrik Gonzalez^{AB*}, Mohsen Khademi^c, Magnus Andersson^{ac}, Frodrik Piehl^c, Erik Wallström^{ac}, Kristian Borg^{ad}, Tomas Olsson^c

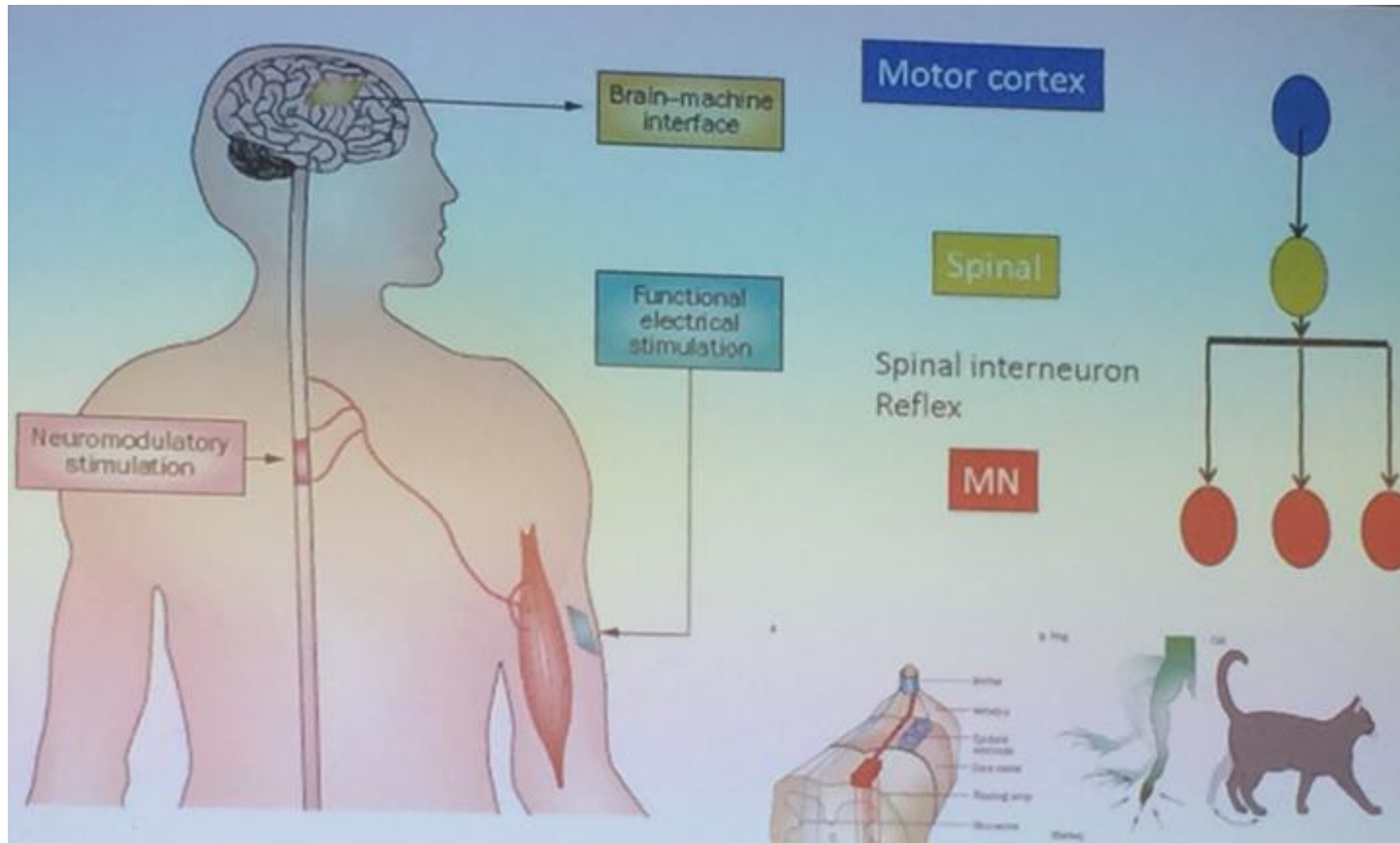
Journal of Neuroimmunology 150 (2004) 139–144



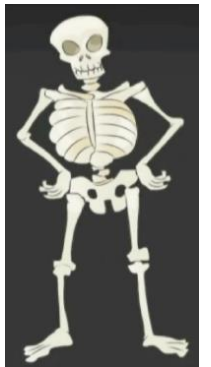
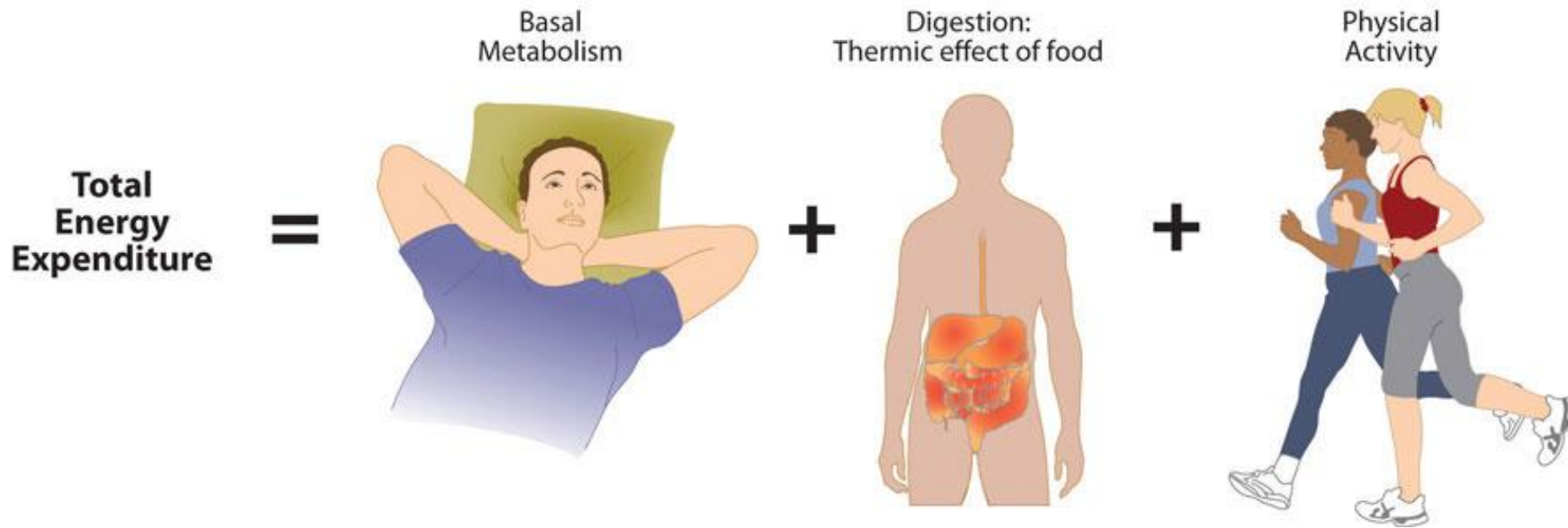
TRANS-CRANIAL DIRECT CURRENT STIMULATION



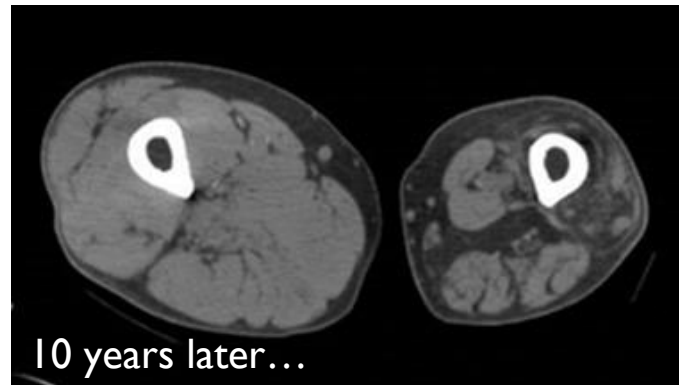
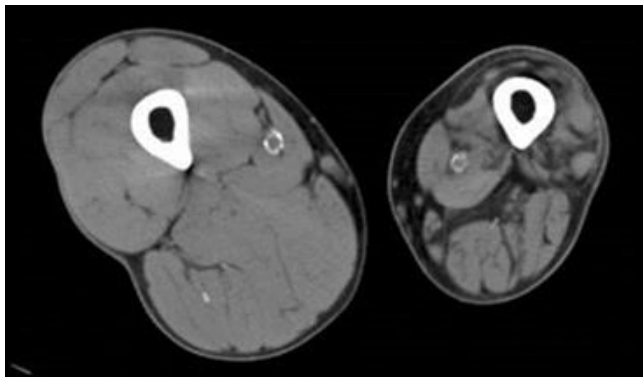
FUNCTIONAL ELECTRICAL STIMULATION (FES) & TDCS?



BASAL METABOLIC RATE & ENERGY EXPENDITURE

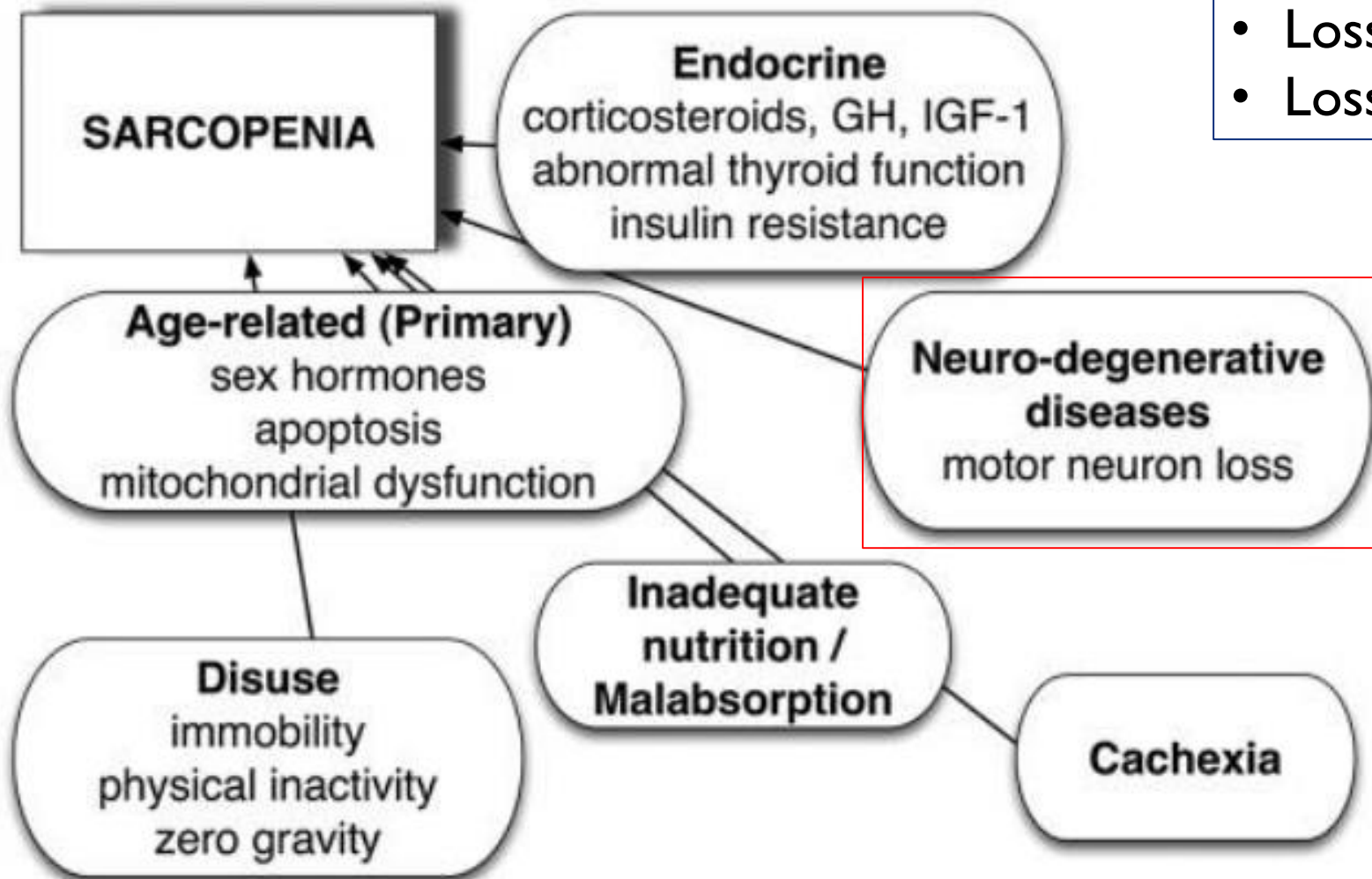


NUTRITION



SARCOPENIA

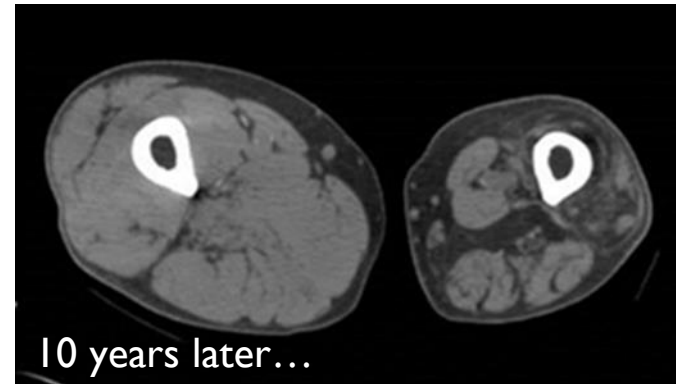
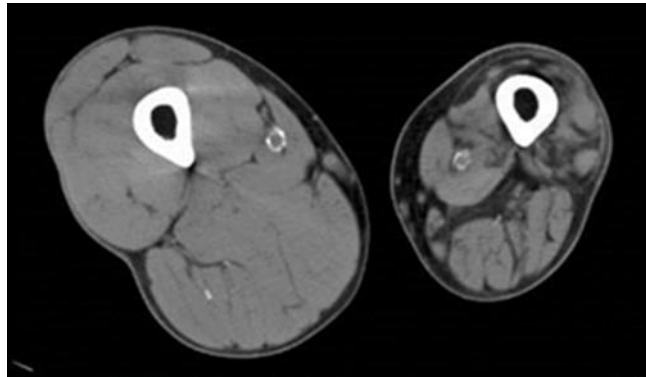
- Loss of muscle mass
- Loss of strength
- Loss of physical performance



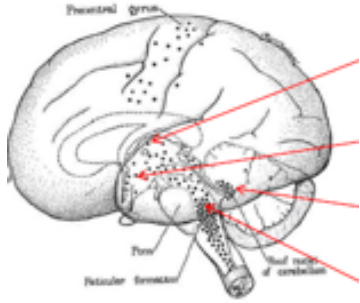
OSTEOPOROSIS



BONE AND MUSCLE MASS LOSS



WHAT IMPACTS ON SLEEP?



SLEEP AND RESPIRATORY STUDIES

Symptoms of Sleep Apnoea

- Morning headaches
- Fatigue
- Constant tired feeling
- Decreased appetite
- Depression
- Impaired concentration



(Post-Polio Health International)



WHAT ABOUT BEFORE YOU'RE "OLD"?

'Next Generation' Polio Survivors

Vilas, New South Wales



Rakesh, New South Wales



- 49% were meeting Aerobic exercise guidelines
- 19% were meeting Strength guidelines
- 72% were doing something

"The polios once showed us - the non-polio crips - how to live in the world with a disability... Now they may teach us how to grow old with our disabilities."

Dr Mary Westbrook [2]

SUMMARY

- Clinical Practice Workshops will continue to lead to further opportunities for supporting Polio survivors
- LEOp requires a combination of disciplines to manage
- We are asking a paradigm shift with activity
- Pacing and energy conservation principles important
- Research ongoing but nothing certain to address global problem of LEOp

QUESTIONS?



THANK YOU



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