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ELECTRIC:

ELECtric: Tibial nerve stimulation to Reduce Incontinence in Care homes

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Background to ELECTRIC

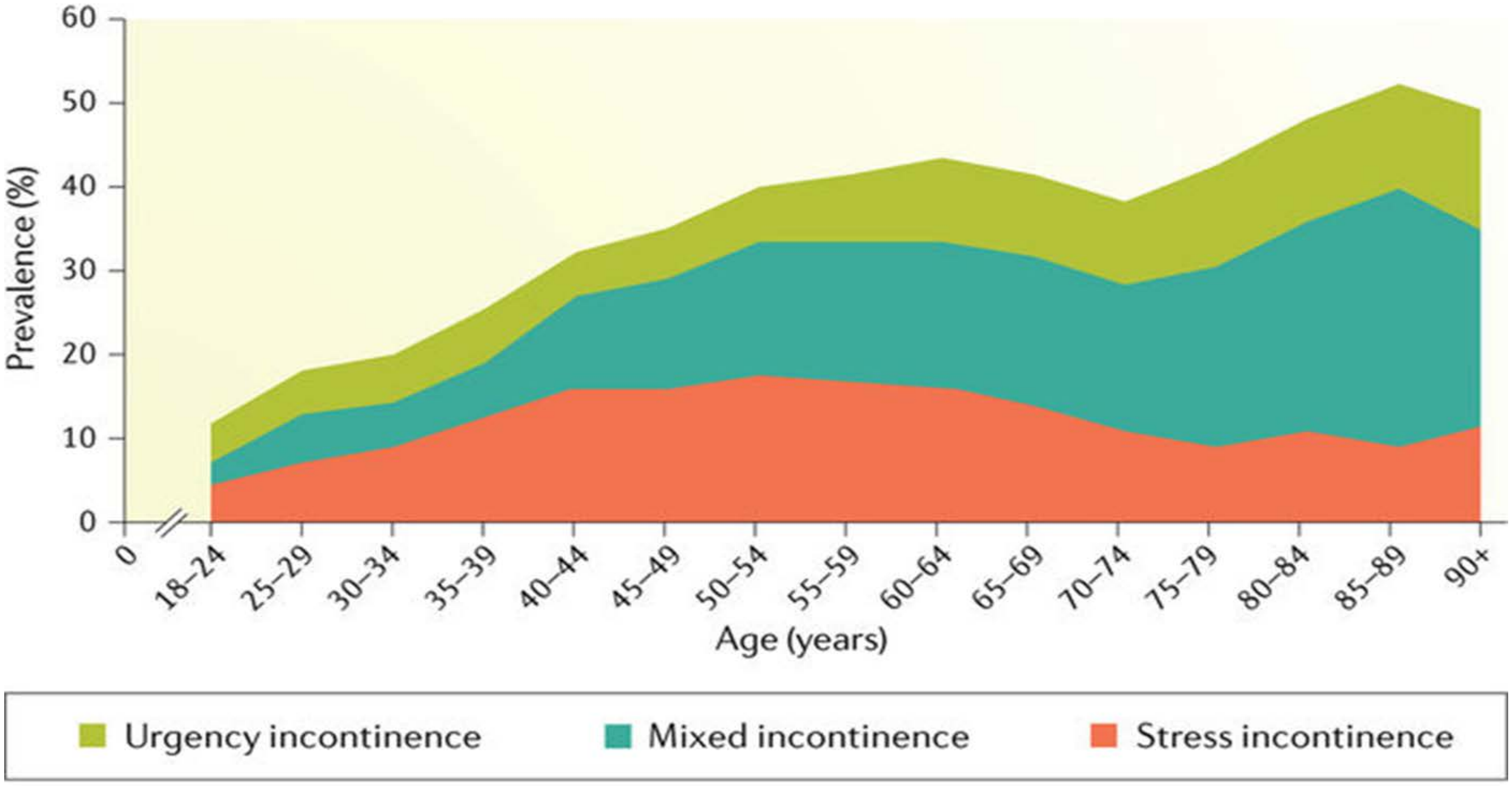
ELECTRIC
electric tibial nerve stimulation
to reduce incontinence in care homes

Urinary Incontinence:

- distressing and embarrassing condition that occurs in around **75%** of older people who live in care homes BUPA, 2012; Visnes 2015
- common in people with dementia as well as other medical conditions eg stroke, Parkinson's, MS, arthritis and increased in comorbidities Markland 2018
- has major impact on older person's dignity and quality of life DuBeau 2006
- linked to other health problems and relationship difficulties eg falls, UTIs, pressure sores, mental health, sleep, sexual health Gibson 2018, Omli 2010, Foley 2011,Yip 2013, Lee 2018**.**
- affects a person's ability and willingness to socialise Stickly 2017,Vo 2016
- few **treatment** options available (except anticholinergic drugs)

Urinary incontinence in older people

mixed urinary incontinence:	most common type of incontinence
stress urinary incontinence:	common in younger women
urgency urinary incontinence:	most common after age 70



What is urgency urinary incontinence?

'A sudden urgent need to void that cannot be put off.'

Fear will wet themselves unless they get to the toilet NOW!

Common to leak before reaching the toilet

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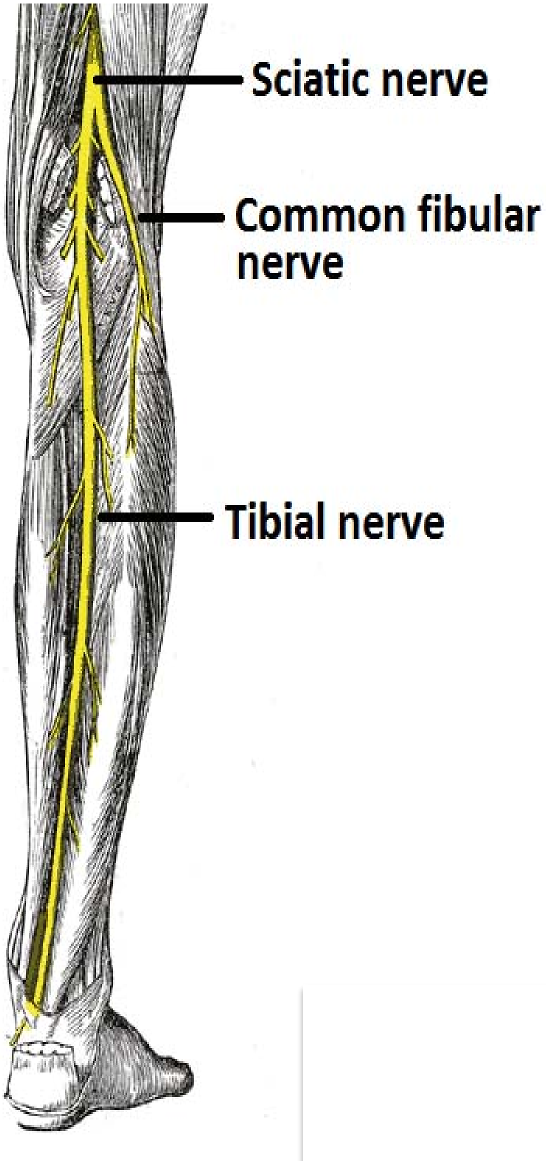
Transcutaneous tibial nerve stimulation (TTNS)

New electrical stimulation treatment for mixed and urgency urinary incontinence



How does it work?

TTNS uses tibial nerve in ankle to access base of spine via sciatic nerve

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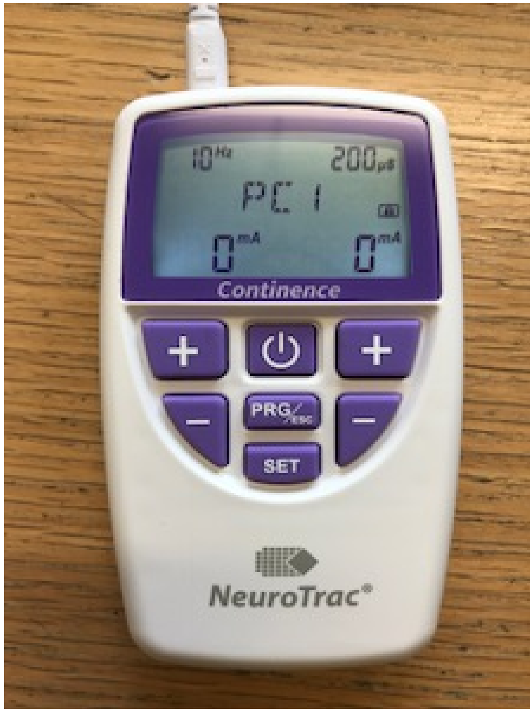
Transcutaneous Tibial Nerve Stimulation (TTNS)

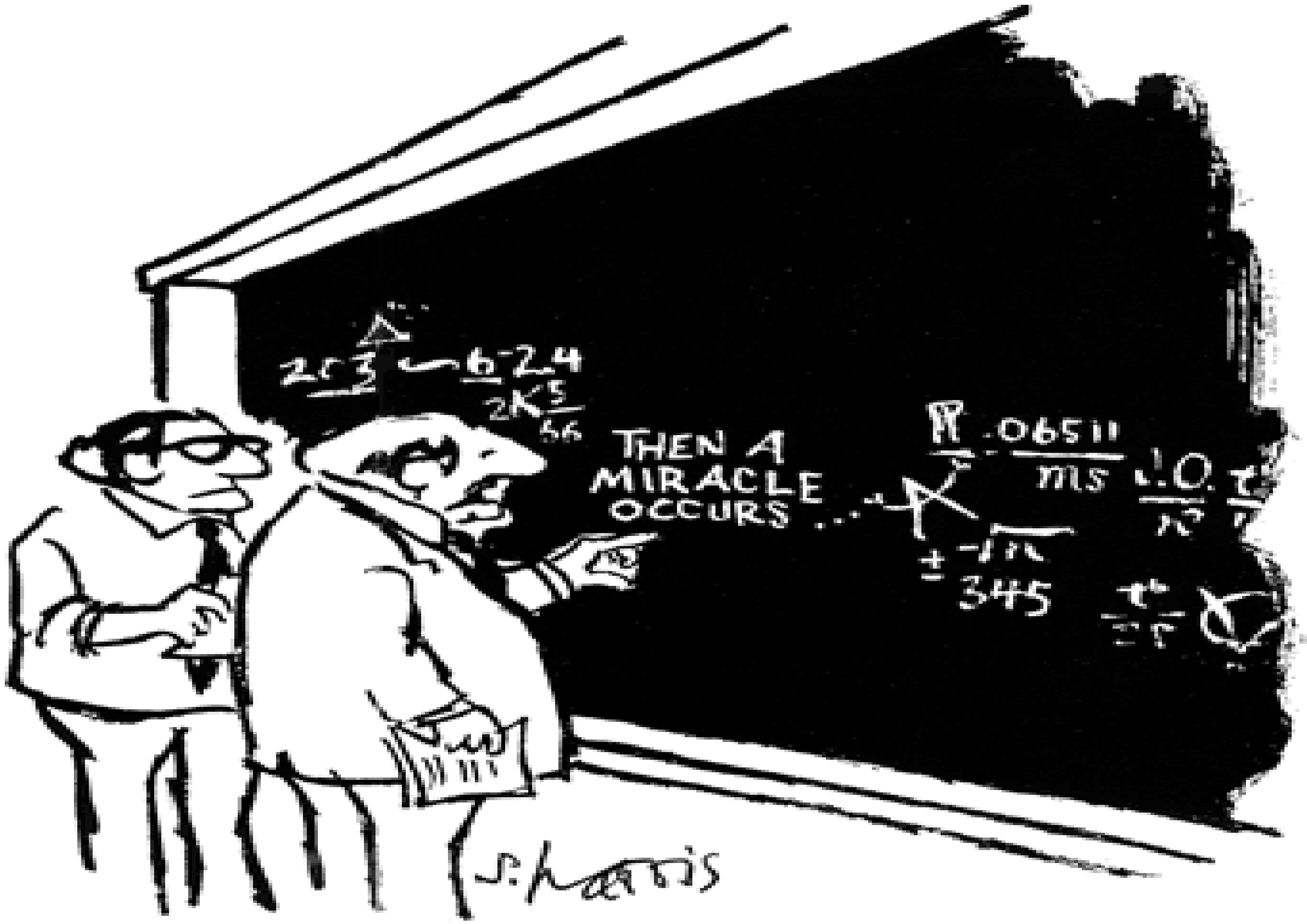
ELECTRIC

electric tibial nerve stimulation
to reduce incontinence in care homes

- two surface electrodes placed on person’s ankle, connected to small, pocket sized electrical stimulator (Neurotrac machine)
- sends an electric pulse to the tibial nerve which links to sacral micturition control centre



How does TTNS work?



"I think you should be more explicit here in step two."

What does TTNS do?

Reduces feelings of urgency =
raises threshold for urgency sensation so resident has more time to get to toilet

Increases bladder capacity =
resident can hold more urine

Reduces frequency =
fewer trips to toilet

Overall = better bladder control

"Hello, incontinence helpline - can you hold?"

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Purpose of ELECTRIC trial

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electric tibial nerve stimulation
to reduce incontinence in care homes

- To test effectiveness and cost consequences of Transcutaneous Tibial Nerve Stimulation (TTNS) treatment compared to a placebo (sham)

- Participants are care home residents in Scotland and England with urinary incontinence who use toilet/toilet aid and wear absorbent pads

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Treatment with TPTNS

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- Total of 12 sessions over a 6 week period (twice a week)
- Each session lasts 30 minutes
- Any time/any day
- Fixed stimulation parameters – 10Hz, 200µs, continuous stim
- Feels like gentle pulsing: intensity of stimulation is adjusted to suit the resident and what is comfortable for them
- No safety concerns

for **6** weeks

30 minutes

Half an **hour**

twice a week

Outcomes measurement

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Primary outcome:

- Pad weight (volume of urinary incontinence over 24 hrs) at 6 weeks post-randomisation.

Secondary outcomes:

- 24 hour pad weight at 12 and 18 weeks post randomisation
- Number of pads used in 24 hrs
- Post-void residual urine volume
- Perception of bladder condition (PPBC)
- Resident toileting skills (MTSQ)
- Quality of Life (DEMQoL)

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ELECTRIC progress

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Trial: Recruitment completed

37 care homes recruited:

25 Scotland,12 England

408 residents recruited

Qualitative study:

37 resident and family interviews

41 care home staff interviews

15 care home manager interviews

Data collection completes end Dec 2019

Research completed June 2020

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Information

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ELECTRIC Trial website:

https://w3.abdn.ac.uk/hsru/ELECTRIC/Public/Public/index.cshtml

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