Neuromodulation with non-invasive low intensity electricity: Electroceuticals

>1000 published human trials, >500 ongoing trials for treatment (Depression, Pain, OCD, Parkinson’s, Schizophrenia, Alzheimer's, Epilepsy, Rehabilitation...) + accelerated learning

Marom Bikson, Department of Biomedical Engineering, The City College of New York
How could Pharmaceuticals treat so many disorders?
It’s not one thing.
Many formulations.

How could Electroceuticals treat many disorders?
It’s not one thing.
Many “formulations”.

Marom Bikson, Department of Biomedical Engineering, The City College of New York
Electroceutical dose: electrode position on the head and electricity waveform

Specific brain regions are associated with specific functions / disease

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How could weights help with so many sports?

It’s a tool to enhance specific training.

How could Electroceuticals treat many disorders?

It’s a tool to enhance cognitive training and therapy.
Marom Bikson, Department of Biomedical Engineering, The City College of New York
tool for the mind that enhances activity and plasticity from cognitive training and therapy

- Human trials use brain stimulation as adjunct to the brain training (e.g. math, game)
- Changes in mood that facilitate training (vigilance, relaxation)
- Boosting placebo – real and specific physiological response associated with expectation
Neuromodulation with non-invasive low intensity electricity: Electroceuticals

From clinic to the home

Consumer

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