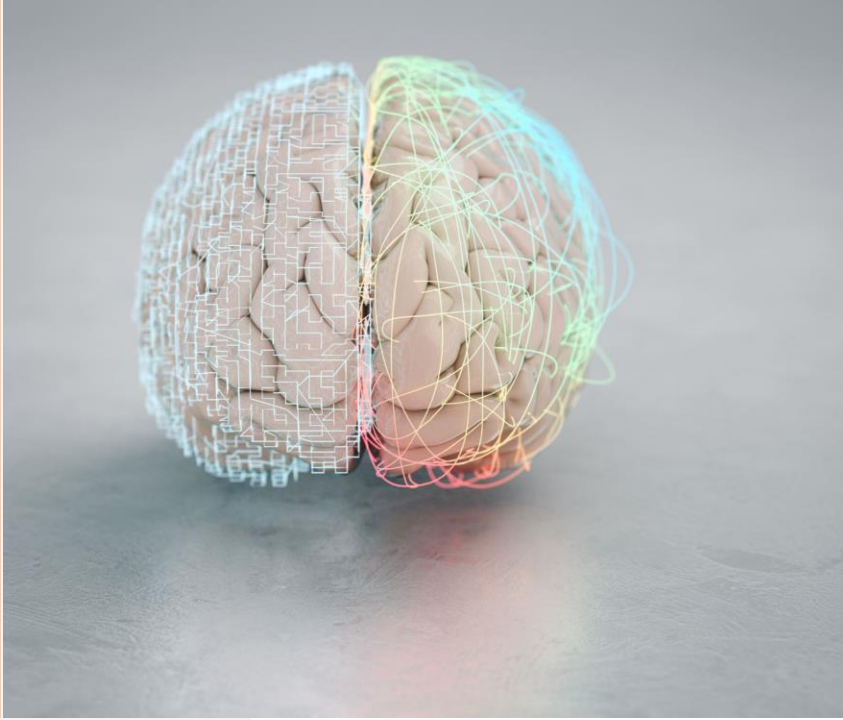




Stroke: General information and physiotherapy

Natalia Gotkowska

III R Fizjoterapia JMGR stacjonarne

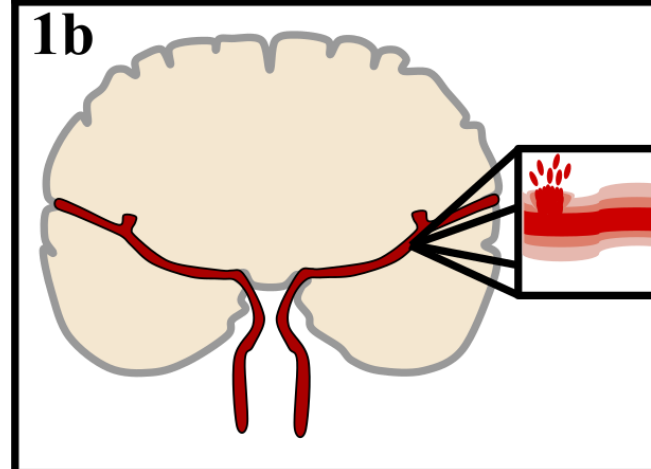
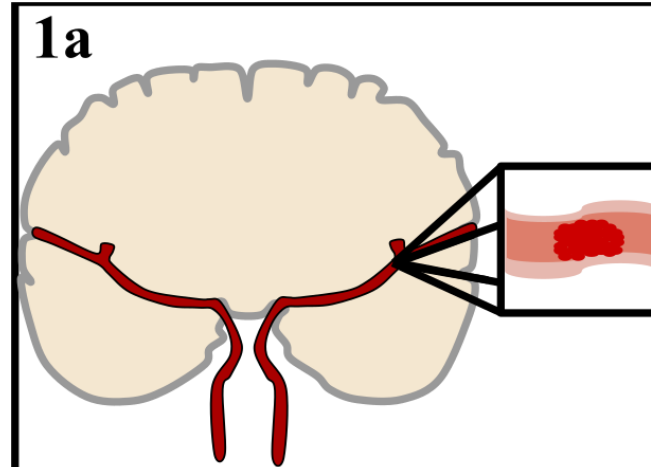
2022/23 sem. Zimowy



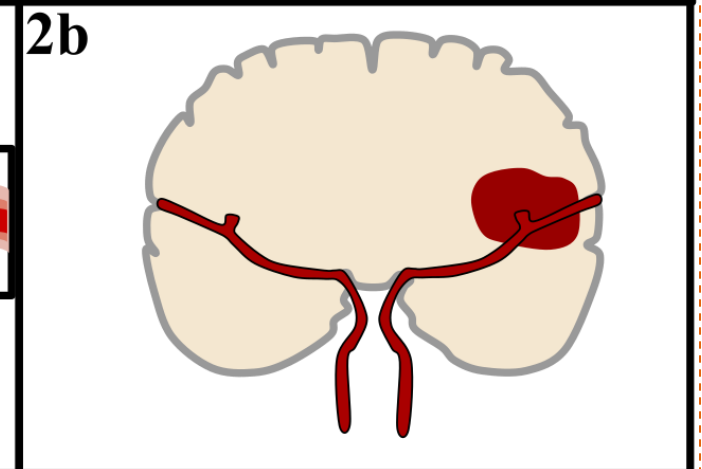
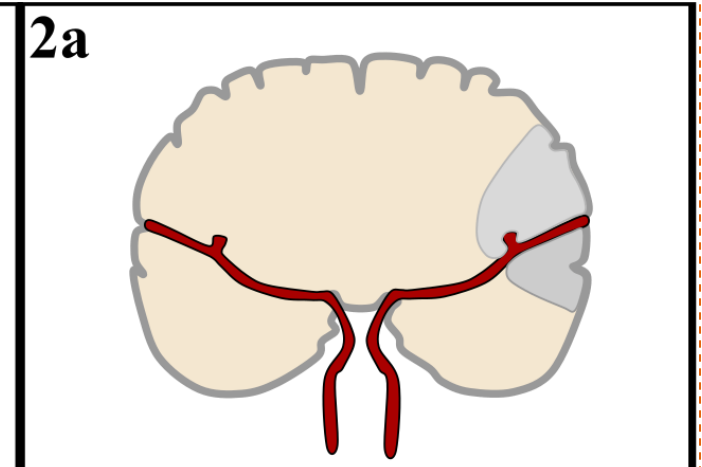
Definition and types of stroke

- Stroke - a set of clinical manifestations associated with the sudden onset of focal or generalized disorder of brain function, arising as a result of impaired cerebral circulation and persisting for more than 24 hours.

Ischemic stroke



Hemorrhagic strokes



Signs of stroke

Sudden **numbness** or weakness in the face, arm, or leg, especially on one side of the body.

Sudden **confusion**, trouble speaking, or difficulty understanding speech.

Sudden **trouble seeing** in one or both eyes.

Sudden **trouble walking**, dizziness, loss of balance, or lack of coordination.

Sudden **severe headache** with no known cause.



Deficits in patients after stroke

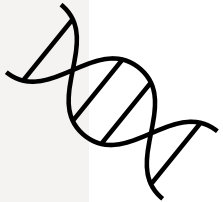
neuropsychological
impairments as
amnesia, agnosia,
aphasia, apraxia
and mood disorders

motor impairments
such as paresis,
spasticity, and
disorders of
mobility

Risk factors

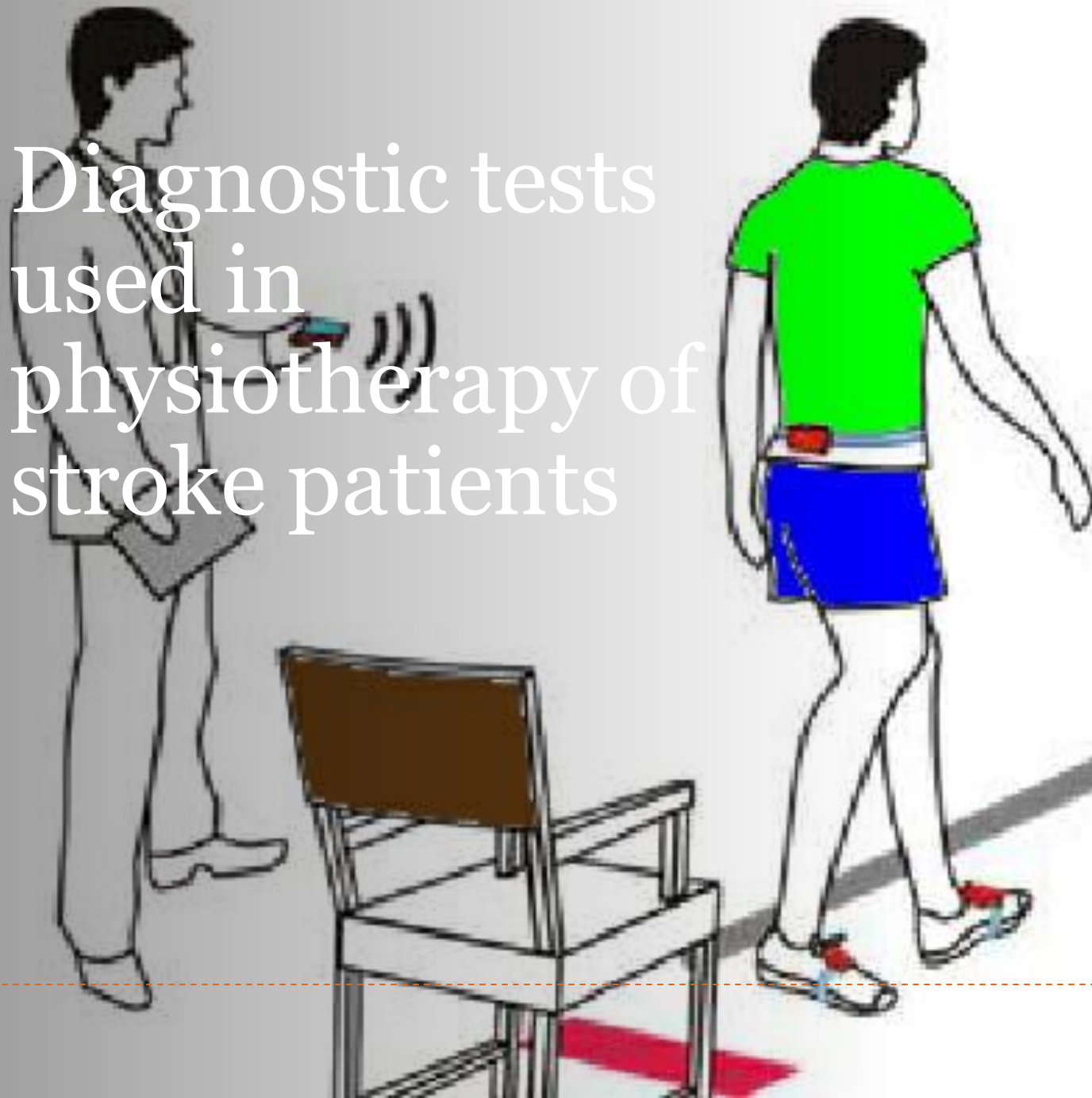


Age, male
gender, genetic
predisposition



Cigarette
smoking,
diabetes,
hypertension,
obesity

Diagnostic tests
used in
physiotherapy of
stroke patients



TEST TUG- Time up and Go

Romberg's Test



<https://bodybuilding-and-fitness.ru/wp-content/uploads/2020/02/test-romberga.jpg>



Five time sit to stand

<https://thejns.org/spine/view/journals/j-neurosurg-spine/29/4/2018.2.SPINE171416f1.jpg>

A photograph of a healthcare worker in blue scrubs assisting an elderly patient in a hospital hallway. The worker is supporting the patient from behind, and the patient is holding onto a handrail. The hallway is long and brightly lit, with a patterned floor and doors on the right side.

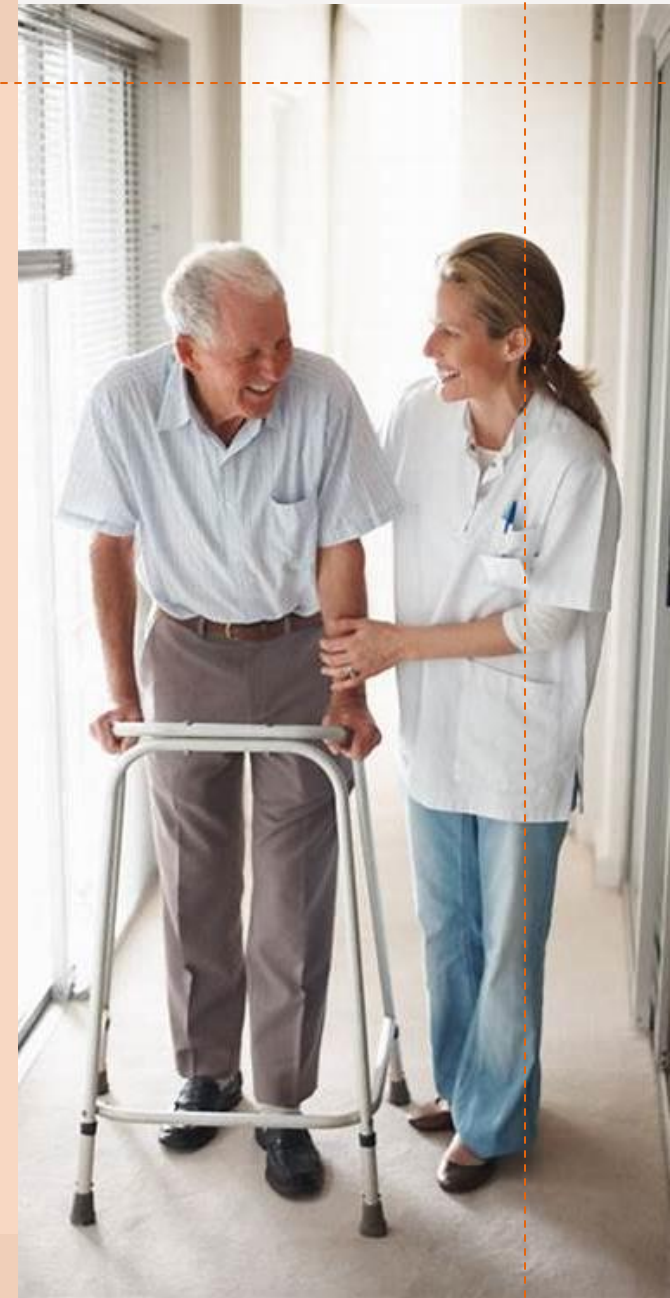
Physiotherapy after stroke. Why is it so important?

https://cdn.galleries.smcloud.net/t/galleries/gf-huVS-6jtz-doe_fizjoterapiachorych-po-udarze-mozgu-1920x1080-nocron.ing

Hospital physiotherapy



- ♦ 1. Verticalization
- ♦ 2. Breathing exercises
- ♦ 3. Passive exercises
- ♦ 4. Assisted Exercises



Gait re-education



<https://www.bardomed.pl/blog/wp-content/uploads/2021/02/redukacja-chodu-przy-pomocy-balkonika-1024x683.jpeg>



<https://i.ytimg.com/vi/-3NInrMCZYo/maxresdefault.jpg>

Physiotherapy treatments

♦ 1. Massage



https://taciak.oferteo.pl/images/offers/100706/115141_content_drenaz_li_mfatyczny.jpg

2. Cryotherapy



https://th.bing.com/th/id/R.74fdb43c6458d51cf386321978de73af?rik=jsNjtrzMr1q2sg&riu=http%3a%2f%2fwww.rehabilitacjawarszawa.com%2ffiles%2f3_1_2_3_1.jpg&ehk=f1ePBVOzxReOuHrId7Nopa1PvNRSFbCqMGr8CIXenBU%3d&risl=&pid=ImgRaw&r=0

3. Tonolysis



<https://kuracjusz24.pl/wp-content/uploads/2016/09/tonoliza-4927954.jpg>

4. TENS



<https://fizjoactivegdansk.pl/wp-content/uploads/2020/10/physiotherapist-applying-electro-stimulation-physical-therapy-young-woman-leg-scaled.jpg>

Kinesitherapy

1. The PNF method
2. The CIMT method
3. Balance exercises



Dictionary/ bibliography

Stroke- udar mózgu

Ischemic- niedokrwieny

Hemorrhagic- krwotoczny

Focal- ogniskowy

Diabetes- cukrzyca

Hypertension- nadciśnienie

Spasticity- spastyczność

Paresis- niedowład

Fall risk – ryzyko upadku

Upper limbs- kończyny górne

Lower limbs- kończyny dolne

Muscle contractures- przukurcze mięśniowe

cerebral circulation- krążenie mózgowe

Risk factors- czynniki ryzyka

- 1/ The interaction between neuropsychological and motor deficits in patients after stroke, Christopher L H Chen · Didier Leys · Alberto Esquenazi; the National University of Singapore (C.C.), Singapore; Université Lille Nord de France (D.L.), Lille, France; and MossRehab Gait & Motion Analysis Laboratory (A.E.), Elkins Park, PA. January 2013; DOI: 10.1212/WNL.0b013e3182762569
- 2/Chronic stroke recovery after combined BCI training and physiotherapy: A case report ANDREA CARIA, CORNELIA WEBER, DORIS BROTTZ, ANDER RAMOS, LUCA F. TICINI, ALIREZA GHARABAGHI, CHRISTOPH BRAUN, and NIELS BIRBAUMER, Psychophysiology,]]] (2010), 1–5. Wiley Periodicals, Inc. Printed in the USA. Copyright r 2010 Society for Psychophysiological Research DOI: 10.1111/j.1469-8986.2010.01117.x
- 3/ Comparison of the content of two physiotherapy approaches for stroke Paulette M van Vliet, Nadina B Lincoln and Elisabeth Robinson Clin Rehabil 2001 15: 398 DOI: 10.1191/026921501678310207
- 4/Ischemic Stroke Complicated by a Brain Abscess: A Case Report and Review of the Literature Hakan EMMEZ Alp Özgün BÖRCEK Fikret DOULU Necdet ÇEVÇEKER Turkish Neurosurgery 2007, Vol: 17, No: 1, 48-54