

Table 4: Registered clinical trials regarding the topic from the last five years.

ClinicalTrials.gov Identifier Recruitment Status Registration Year	Study type/ Allocation	Subjects	Interventions and training modalities	Main outcomes measures
NCT01789853 Completed 2013 ⁵⁵	I(CT)/R	N =56; Age =18-75 Sex =All Time since stroke <6m	Exp =high intensity walking training (treadmill, overground, stair training, skilled walking training); Frequency =40 min x 3/wk x 8/wk; Con =conventional physical therapy; Frequency = 40 min x 3/wk x 8/wk	Speed =10-m walk test Distance =6-min walk test Balance =BBS; Follow-up =0, 4, 8, 16 wk
NCT01827436 Completed 2013 ⁵⁵	I(CT)/R	N =9; Age =5-17 Sex =All Time since stroke =min 6 months post-stroke	Exp =asymmetrical gait training (walking on a split-belt treadmill with the belts moving at different speeds under each leg); Frequency =3/wk x 8/wk; Con =conventional physical therapy (walking practice, muscle strengthening, and balance training); Frequency =3/wk x 8/wk	Walking symmetry, walking speed, excitability of neural motor pathways, patient/parent satisfaction rating, community step activity; Follow-up =0, 8 wk; Walking ability and cortical excitability measure; Follow-up =0, 4 wk, before and after a 4 wk withdraw phase
NCT02132650 Recruiting 2014 ⁵⁸	I(CT)/R	N =60; Age =18-80 Sex =All Time since stroke =6-18 months post-stroke	Exp =rehabilitation of walking using typical steady state walking speed. Conducted overground and on treadmill; Frequency =60 min x3/wk x 12/wk; Con =rehabilitation of walking using accurate walking tasks (stepping on targets, over obstacles); Frequency =60 min x3/wk x 12/wk	Walking Speed Follow-up = 0, 12, 24 wk
NCT02619110 Completed 2014 ⁵⁸	I(CT)/R	N =30; Age =60-65 Sex =All Time since stroke =chronic stroke more than 6 months	Exp =backward walking treadmill training + conventional physical therapy (strengthening, postural control, functional mobility and forward gait training program); Frequency treadmill =30 min x 5/wk x 4/wk; Frequency conventional physical therapy =30 min x 3/wk x 4/wk; Con =conventional physical therapy (strengthening, postural control, functional mobility and forward gait training program); Frequency = 30 min x 3/wk x 4/wk	Balance =BBS Pulmonary function test =FVC, FEV1 Speed =10-m walk test Distance =6-min walk test Speed during upright mobility =TUG Follow-up =0, 4 wk
NCT02043574 Recruiting 2014 ⁵⁷	I(CT)/R	N =50; Age =20 Years and older; Sex =All; Time since stroke =greater than or equal to 6 months	Exp =treadmill exercise; Frequency =15 - 50 min x 2/wk x 24/wk Con =stretching (basic mobility skills, including balance, endurance, sit-to-stand, weight shifting, leg strength, and truncal stability-coordination) Frequency =60 min x 2/wk x 24/wk	Total daily energy expenditure =accelerometer Follow-up =0, 24 wk; Substrate oxidation =open circuit spirometry; Follow-up =0, 2 of dietary education, 24 wk; Tissue oxidative stress =bilateral vastus lateralis muscle biopsies; Follow-up =0, 24 wk
NCT02190734 Recruiting 2014 ⁵¹	I(CT)/R	N =12; Age =18-89 Sex =All; Time since stroke = stroke within previous 180 days	Exp =treadmill training with or without BWS; Frequency =30 min x 3/wk x 10/days; Con1 =overground walking with or without BWS; Con2 =sitting in wheel chair (Placebo/control intervention); Frequency =30 min x 3/wk x 10/days	Clinical measure of pushing behaviours in supine position, sitting, standing, walking, and transfers = Burke Lateropulsion Scale; Follow-up =0, after each of 3 treatment sessions (3 separate days) over a maximum of a 10 day period
NCT02550015 Recruiting 2015 ⁵⁹	I(CT)/R	N =70; Age =18-75 Sex =All Time since stroke = minimum 3 months post-stroke	Exp = supervised high intensity interval treadmill training Frequency =4x4 min x 3/wk x 8/wk Con =standard care (including general information about importance of physical activity as part of a healthy lifestyle)	Maximal Oxygen Uptake =breath ergospirometer; Blood pressure; Speed =10-m walk test; Speed during upright mobility =TUG; Leisure time activity and inactive time =ActivePal monitor; Balance =BBS; Blood tests; Functional Independence =FIM; Self-reported physical activity level =IPAQ; Cognitive function = Montreal Cognitive Assessment; Distance =6-min walk test; New cardiovascular or cerebrovascular incidents; Anxiety and depression after stroke = Hospital and Anxiety and Depression Scale; Self-reported perceived recovery =SIS Degree of disability and dependence =mRS; Health status =EQ-5D-5; Submaximal oxygen consumption; Follow-up =8, 48 wk
NCT02798237 Recruiting 2016 ⁵⁰	I(CT)/R	N =22; Age =20 Years and older Sex =All Time since stroke =more than 6 months	Exp =aerobic treadmill training Frequency =40 min x 3/wk x 12/wk Con =overground walking Frequency =40 min x 3/wk x 12/wk	Physical activity levels =multisensor monitor, Human Activity Profile; Sedentary behavior =multisensor monitor Cardiorespiratory fitness =cardiopulmonary exercise test Distance =6-min walk test, shuttle walk test; Depression =PHQ-2, PHQ-9; Mobility =gait speed; Quality of life - Stroke specific quality of life; Participation - SIS; Follow-up =0, 12, 16 wk
NCT02680496 Terminated 2016 ⁶⁰	I(CT)/R	N =14; Age =18 Years and older; Sex =All Time since stroke <1 year	Exp1 =lokomat + treadmill + overground walking (with or without BWS); Exp2 =lokomat + overground + treadmill walking (with or without BWS); Exp3 =treadmill + lokomat + overground walking (with or without BWS); Exp4 =treadmill + overground + lokomat walking (with or without BWS); Exp5 =overground + lokomat + treadmill walking (with or without BWS); Exp6 =overground + treadmill + lokomat walking (with or without BWS); Frequency (all groups) =30 min x single walking trial	Gross, net: oxygen consumption, minute ventilation, respiration rate, heart rate, respiratory exchange ratio, metabolic equivalent of task; Gross, net perceived exertion = Borg Scale; Total walking duration; Paretic, non-paretic: cadence, gait cycle time, stance, swing, double support (variability and symmetry ratio); Follow-up =Minute 5 of 5-minute resting period, Minute 6, 18, 30 of 30-minute walking period

I(CT): Interventional (Clinical Trial), R: Randomized, BBS: Berg Balance Scale, FVC: forced vital capacity, FEV1: Forced expiratory volume in one second, TUG: Timed Up and Go test, SIS: Stroke Impact Scale, PHQ-2, PHQ-9: Patient Health Questionnaire, BWS: body weight support, IPAQ: International Physical Activity Questionnaire, mRS: Modified Rankin Scale.