Kunnskapsbasert retningslinje for diagnostisering og oppfølging av personer med cerebral parese

MOTORIKK

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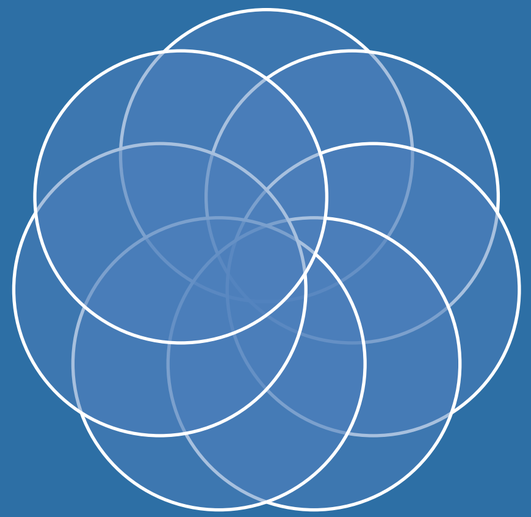
NorCP
Kunnskapsbasert retningslinje

- Ni deltema
- Utvidete anbefalinger for hvert tema



Muskeltonus

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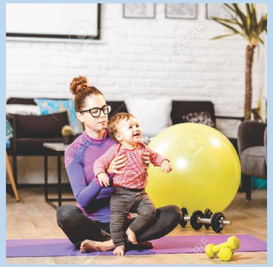

Tidlig intervensjon

Håndfunksjon

Postural kontroll og posisjonering

Leddbevegelighet

Styrke

Utholdenhet

Forflytning

Fysisk aktivitet

Fatigue

Motorikk

Innledning

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Kunnskapsbasert retningslinje

DEVELOPMENTAL MEDICINE & CHILD NEUROLOGY CLINICAL PRACTICE GUIDE

Interventions to improve physical function for children and young people with cerebral palsy: international clinical practice guideline

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This clinical practice guide is commented by Saloojee on page 530 of this issue.
This Clinical Practice Guide is linked to the letters to the editor by Logan on pages 662–663 and Jackman on pages 664–665 of this issue.
Plain language summary: https://onlinelibrary.wiley.com/doi/10.1111/dmcn.15791

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ABBREVIATIONS

CIMT	Constraint-induced movement therapy
CO-OP	Cognitive orientation to occupational performance
GRADE	Grading of Recommendations Assessment, Development and Evaluation
HABIT-ILE	Hand–arm bimanual intensive training including lower extremity
ICF	International Classification of Functioning, Disability and Health
MACS	Manual Ability Classification System
PICO	Population, intervention, comparison, outcome
RCT	Randomized controlled trial

AIM To provide recommendations for interventions to improve physical function for children and young people with cerebral palsy.
METHOD An expert panel prioritized questions and patient-important outcomes. Using Grading of Recommendations Assessment, Development and Evaluation (GRADE) methods, the panel assessed the certainty of evidence and made recommendations, with international expert and consumer consultation.
RESULTS The guideline comprises 13 recommendations (informed by three systematic reviews, 30 randomized trials, and five before–after studies). To achieve functional goals, it is recommended that intervention includes client-chosen goals, whole-task practice within real-life settings, support to empower families, and a team approach. Age, ability, and child/family preferences need to be considered. To improve walking ability, overground walking is recommended and can be supplemented with treadmill training. Various approaches can facilitate hand use goals: bimanual therapy, constraint-induced movement therapy, goal-directed training, and cognitive approaches. For self-care, whole-task practice combined with assistive devices can increase independence and reduce caregiver burden. Participation in leisure goals can combine whole-task practice with strategies to address environmental, personal, and social barriers.
INTERPRETATION Intervention to improve function for children and young people with cerebral palsy needs to include client-chosen goals and whole-task practice of goals. Clinicians should consider child/family preferences, age, and ability when selecting specific interventions.

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Motorikk

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Fatigue

Håndfunksjon

Kartlegging

Fremme gangfunksjon

Fremme mobilitet

Opprettholde gangfunksjon

Kunnskapsgrunnlag

Referanser

metoderapport_med_søk_13_03_2024.pdf

Kartlegging

KARTLEGGING

Hovedanbefaling 1

Barn med CP (uavhengig av subtype og funksjonsnivå) bør kartlegges med hensyn til gange og forflytning i henhold til NorCP protokoll. Hos voksne bør gange og forflytning kartlegges ved indikasjon på funksjonsendring som personen eller nærpersoner opplever som et problem.

Utvidet anbefaling

- Det bør brukes standardiserte, reliable og validerte måleinstrument når gange og forflytning kartlegges.[3] Standardisert testing bør ledsages av observasjon og bevegelsesanalyse i naturlige omgivelser.
- Ved sammensatt og komplisert gangproblematikk bør henvisning til spesialisthelsetjenesten og tredimensjonal databasert ganganalyse (3DGA) vurderes.
- Som grunnlag for å formulere og evaluere individualiserte mål anbefales Goal Attainment Scaling (GAS)[4] og/eller Canadian Occupational Performance Measure (COPM).[5]

Gjennomføring

Praktisk, slik kan anbefalingen følges

Kartlegging av gange og forflytning bør omfatte komponenter på kroppsfunksjons-, aktivitets-, og deltakelsesnivå. Omgivelsesfaktorer bør også alltid tas i betraktning, spesielt ved bruk av forflytningshjelpemidler. Et godt utgangspunkt er måleinstrumenter som benyttes i NorCP (Gross Motor Function Measure (GMFM), Pediatric Evaluation of Disability Inventory (PEDI/PEDI-CAT) og Functional Mobility Scale (FMS) (lenke til kartleggingsskjema).

Kartleggingsverktøy & tester
(kapittel under utvikling)

- Klassifikasjoner, kartleggingsverktøy og standardiserte tester vil være listet i eget kapittel.
- Direkte lenker fra tekst.
- Alfabetisk søkefunksjon og søkefunksjon på emne, etter modell fra STROKE ENGINE.

NYSGJERRIG- se stroke engine for inspirasjon

Postural kontroll og posisjonering

- «Kartlegging av postural kontroll, balanse, evne til å opprettholde eller endre stilling, postural asymmetri og vurdering av fallrisiko bør inngå som en del av funksjonsvurderingen hos personer med CP uavhengig av alder, subtype og GMFCS nivå»

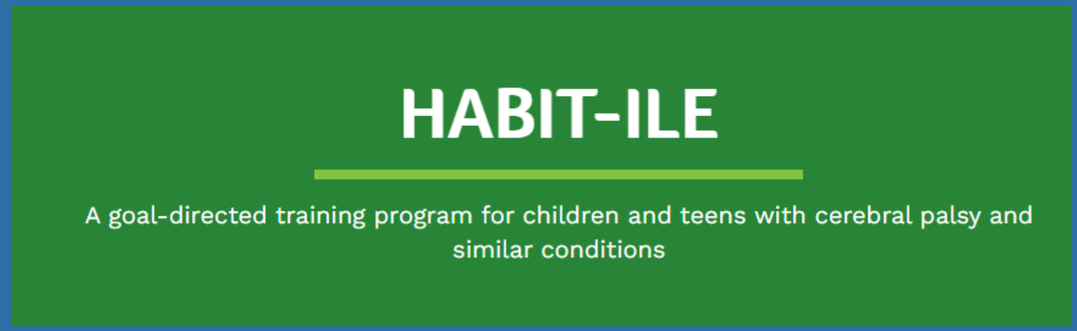
- «Postural asymmetri og evne til å opprettholde og endre posisjon bør kartlegges systematisk med Posture and Postural Ability Scale (PPAS)»

PPAS manual

Gange, forflytning, mobilitet

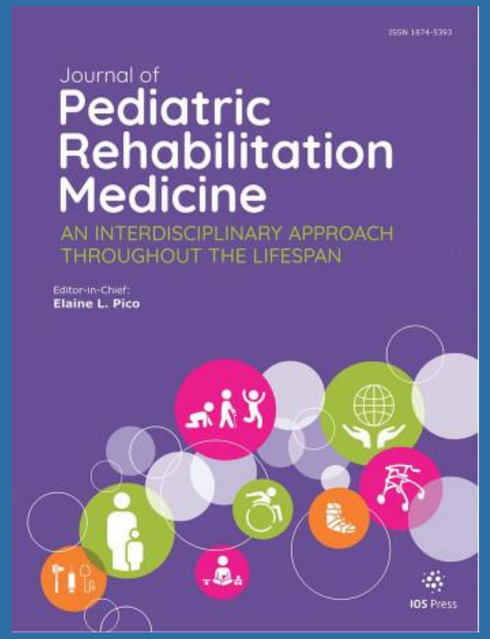
- «Barn og unge med mål om å fremme gangfunksjon og forflytning, bør få målrettet funksjonstrening i høy nok dose organisert i intensive bolker, dersom medisinsk tilstand og funksjonsnivå tilsier dette».

- «HABIT-ILE (målrettet intensiv funksjonstrening som inkluderer over- og underekstremiteter) kan vurderes som metode for gjennomføring av intensive treningsperioder».



Leddbevegelighet

- «Posisjoneringstiltak for vektbærende ledd (f.eks ståstativ/skall) anbefales dersom medisinsk tilstand, personlige faktorer, mål og motivasjon tillater dette».
- «For optimal vektbæring i ståhjelpemiddel bør barnet stå med hofter og føtter i nøytral stilling og strake knær».

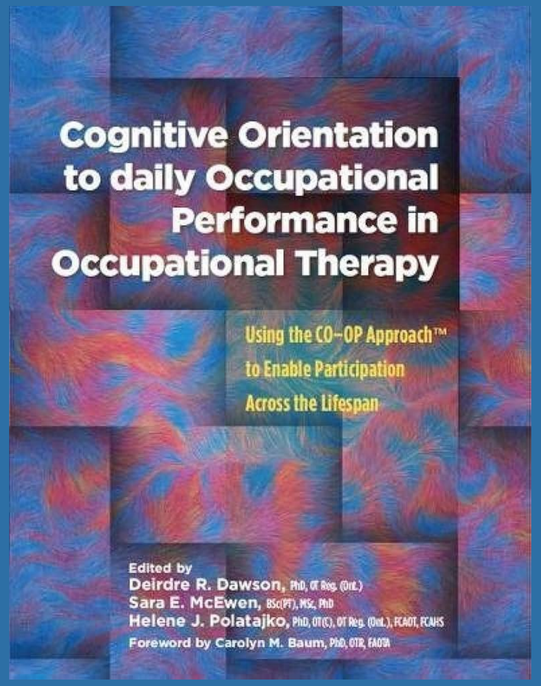


Paleg G, Altizer W, Malone R, Ballard K, Kreger A. Inclination, hip abduction, orientation, and tone affect weight-bearing in standing devices.

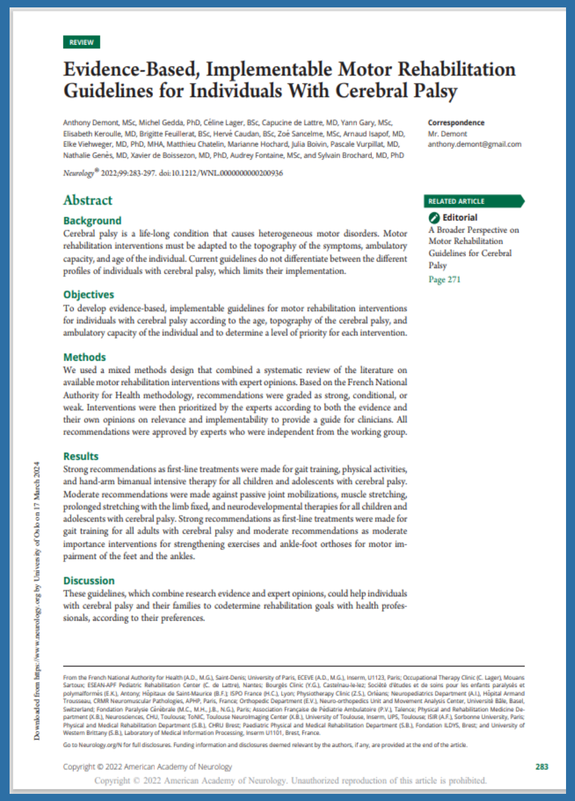
Håndfunksjon

- «Personer med CP (alle aldre, subtyper og funksjonsnivå) som har mål relatert til bruk av hendene bør få tilbud om målrettet aktivitetsbasert trening, eventuelt i kombinasjon med tilrettelegging av omgivelsene og bruk av tilpasset utstyr»

- «Målrettet oppgaveorientert trening anbefales gjennomført ved bruk av veiledede hjemmetreningsprogram, som f.eks. Cognitive Orientation to daily Occupational Performance (CO-OP)».



Relevant oppsummert forskning



REVIEW

Evidence-Based, Implementable Motor Rehabilitation Guidelines for Individuals With Cerebral Palsy

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Abstract

Background
Cerebral palsy is a life-long condition that causes heterogeneous motor disorders. Motor rehabilitation interventions must be adapted to the topography of the symptoms, ambulatory capacity, and age of the individual. Current guidelines do not differentiate between the different profiles of individuals with cerebral palsy, which limits their implementation.

Objectives
To develop evidence-based, implementable guidelines for motor rehabilitation interventions for individuals with cerebral palsy according to the age, topography of the cerebral palsy, and ambulatory capacity of the individual and to determine a level of priority for each intervention.

Methods
We used a mixed methods design that combined a systematic review of the literature on available motor rehabilitation interventions with expert opinions. Based on the French National Authority for Health methodology, recommendations were graded as strong, conditional, or weak. Interventions were then prioritized by the experts according to both the evidence and their own opinions on relevance and implementability to provide a guide for clinicians. All recommendations were approved by experts who were independent from the working group.

Results
Strong recommendations as first-line treatments were made for gait training, physical activities, and hand-arm bimanual intensive therapy for all children and adolescents with cerebral palsy. Moderate recommendations were made against passive joint mobilizations, muscle stretching, prolonged stretching with the limb fixed, and neurodevelopmental therapies for all children and adolescents with cerebral palsy. Strong recommendations as first-line treatments were made for gait training for all adults with cerebral palsy and moderate recommendations as moderate importance interventions for strengthening exercises and ankle-foot orthoses for motor impairment of the feet and the ankles.

Discussion
These guidelines, which combine research evidence and expert opinions, could help individuals with cerebral palsy and their families to codetermine rehabilitation goals with health professionals, according to their preferences.

RELATED ARTICLE
Editorial
A Broader Perspective on Motor Rehabilitation Guidelines for Cerebral Palsy
Page 271

From the French National Authority for Health (A.D., M.G.), Saint-Denis; University of Paris, ECEVE (A.D., M.G.), Inserm, U1123, Paris; Occupational Therapy Clinic (C. Lager), Mouans Sartoux; ESEAN APF Pediatric Rehabilitation Center (C. de Lattre), Nantes; Bourgès Clinic (Y.G.), Castelnau-le-lez; Société d'études et de soins pour les enfants paralysés et polymalformés (E.K.), Antony; Hôpitaux de Saint-Maurice (B.F.); ISPO France (H.C.), Lyon; Physiotherapy Clinic (Z.S.), Orléans; Neuropediatrics Department (A.I.), Hôpital Armand Trousseau, CRMR Neuromuscular Pathologies, APHP, Paris, France; Orthopedic Department (E.V.), Neuro-orthopedics Unit and Movement Analysis Center, Université Bâle, Basel, Switzerland; Fondation Paralysie Cérébrale (M.C., M.H., J.B., N.G.), Paris; Association Française de Pédiatrie Ambulatoire (P.V.), Talence; Physical and Rehabilitation Medicine Department (K.B.), Neurosciences, CHU, Toulouse; ToNIC, Toulouse NeuroImaging Center (K.B.), University of Toulouse, Inserm, UPS, Toulouse; ISIR (A.F.), Sorbonne University, Paris; Physical and Medical Rehabilitation Department (S.B.), CHRU Brest; Paediatric Physical and Medical Rehabilitation Department (S.B.), Fondation ILDYS, Brest; and University of Western Brittany (S.B.), Laboratory of Medical Information Processing, Inserm U1101, Brest, France.

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NICE National Institute for Health and Care Excellence

NICE guideline

Cerebral palsy in adults

NICE guideline
Published: 15 January 2019

www.nice.org.uk/guidance/ng119

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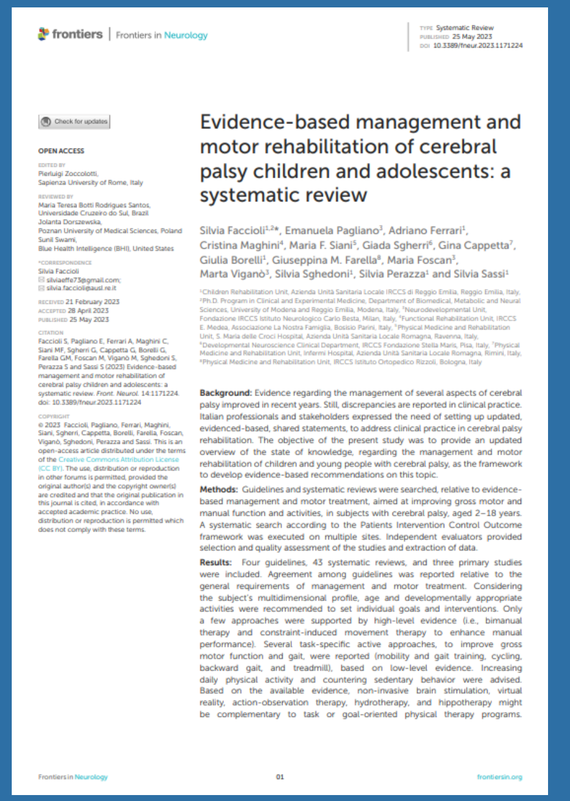

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Evidence-based management and motor rehabilitation of cerebral palsy children and adolescents: a systematic review

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Background: Evidence regarding the management of several aspects of cerebral palsy improved in recent years. Still, discrepancies are reported in clinical practice. Italian professionals and stakeholders expressed the need of setting up updated, evidenced-based, shared statements, to address clinical practice in cerebral palsy rehabilitation. The objective of the present study was to provide an updated overview of the state of knowledge, regarding the management and motor rehabilitation of children and young people with cerebral palsy, as the framework to develop evidence-based recommendations on this topic.

Methods: Guidelines and systematic reviews were searched, relative to evidence-based management and motor treatment, aimed at improving gross motor and manual function and activities, in subjects with cerebral palsy, aged 2–18 years. A systematic search according to the Patients Intervention Control Outcome framework was executed on multiple sites. Independent evaluators provided selection and quality assessment of the studies and extraction of data.

Results: Four guidelines, 43 systematic reviews, and three primary studies were included. Agreement among guidelines was reported relative to the general requirements of management and motor treatment. Considering the subject's multidimensional profile, age and developmentally appropriate activities were recommended to set individual goals and interventions. Only a few approaches were supported by high-level evidence (i.e., bimanual therapy and constraint-induced movement therapy to enhance manual performance). Several task-specific active approaches, to improve gross motor function and gait, were reported (mobility and gait training, cycling, backward gait, and treadmill), based on low-level evidence. Increasing daily physical activity and countering sedentary behavior were advised. Based on the available evidence, non-invasive brain stimulation, virtual reality, action-observation therapy, hydrotherapy, and hippotherapy might be complementary to task or goal-oriented physical therapy programs.

Clinical Review & Education

JAMA Pediatrics | Review

Early Intervention for Children Aged 0 to 2 Years With or at High Risk of Cerebral Palsy

International Clinical Practice Guideline Based on Systematic Reviews

Catherine Morgan, PhD; Linda Fetters, PhD; Lars Adde, PhD; Nadia Badawi, PhD; Ada Bancale, NPT; Roslyn N. Boyd, PhD; Olena Chorna, CCRP; Giovanni Cioni, MD; Diane L. Damiano, PhD; Johanna Darrah, PhD; Linda S. de Vries, PhD; Stacey Dusing, PhD; Christa Einspieler, PhD; Ann-Christin Eliasson, PhD; Donna Ferriero, MD; Darcy Fehlings, MD; Hans Forssberg, MD; Andrew M. Gordon, PhD; Susan Greaves, PhD; Andrea Guzzetta, PhD; Mijna Hadders-Algra, PhD; Regina Harbourne, PhD; Petra Karlsson, PhD; Lena Krumlinde-Sundholm, PhD; Beatrice Latal, PhD; Alison Loughran-Fowlds, PhD; Catherine Mak, PhD; Nathalie Maitre, MD; Sarah McIntyre, PhD; Cristina Mei, PhD; Angela Morgan, PhD; Angelina Kakooza-Mwesige, PhD; Domenico M. Romeo, PhD; Katherine Sanchez, PhD; Alicia Spittle, PhD; Roberta Shepherd, PhD; Marelle Thornton, DipEd; Jane Valentine, PhD; Roslyn Ward, PhD; Koa Whittingham, PhD; Alieh Zamany, DPT; Iona Novak, PhD

IMPORTANCE Cerebral palsy (CP) is the most common childhood physical disability. Early intervention for children younger than 2 years with or at risk of CP is critical. Now that an evidence-based guideline for early accurate diagnosis of CP exists, there is a need to summarize effective, CP-specific early intervention and conduct new trials that harness plasticity to improve function and increase participation. Our recommendations apply primarily to children at high risk of CP or with a diagnosis of CP, aged 0 to 2 years.

OBJECTIVE To systematically review the best available evidence about CP-specific early interventions across 9 domains promoting motor function, cognitive skills, communication, eating and drinking, vision, sleep, managing muscle tone, musculoskeletal health, and parental support.

EVIDENCE REVIEW The literature was systematically searched for the best available evidence for intervention for children aged 0 to 2 years at high risk of or with CP. Databases included CINAHL, Cochrane, Embase, MEDLINE, PsycInfo, and Scopus. Systematic reviews and randomized clinical trials (RCTs) were appraised by A Measurement Tool to Assess Systematic Reviews (AMSTAR) or Cochrane Risk of Bias tools. Recommendations were formed using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) framework and reported according to the Appraisal of Guidelines, Research, and Evaluation (AGREE) II instrument.

FINDINGS Sixteen systematic reviews and 27 RCTs met inclusion criteria. Quality varied. Three best-practice principles were supported for the 9 domains: (1) immediate referral for intervention after a diagnosis of high risk of CP, (2) building parental capacity for attachment, and (3) parental goal-setting at the commencement of intervention. Twenty-eight recommendations (24 for and 4 against) specific to the 9 domains are supported with key evidence: motor function (4 recommendations), cognitive skills (2), communication (7), eating and drinking (2), vision (4), sleep (7), tone (1), musculoskeletal health (2), and parent support (5).

CONCLUSIONS AND RELEVANCE When a child meets the criteria of high risk of CP, intervention should start as soon as possible. Parents want an early diagnosis and treatment and support implementation as soon as possible. Early intervention builds on a critical developmental time for plasticity of developing systems. Referrals for intervention across the 9 domains should be specific as per recommendations in this guideline.

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Supplemental content

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- Spesifikke kurs/webinarer rettet mot oppfølging av barn, ungdom og voksen
- HABIT-ILE
- Tiltak håndfunksjon
- CO-OP
- Vektbæring i stående, posisjonering

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