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The Copenhagen Consensus Conference 2016: children, youth, and physical activity in schools and during leisure time

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ABSTRACT

From 4 to 7 April 2016, 24 researchers from 8 countries and from a variety of academic disciplines gathered in Snekkersten, Denmark, to reach evidence-based consensus about physical activity in children and youth, that is, individuals between 6 and 18 years. Physical activity is an overarching term that consists of many structured and unstructured forms within school and out-of-school-time contexts, including organised sport, physical education, outdoor recreation, motor skill development programmes, recess, and active transportation such as biking and walking. This consensus statement presents the accord on the effects of physical activity on children's and youth's fitness, health, cognitive functioning, engagement, motivation, psychological well-being and social inclusion, as well as presenting educational and physical activity implementation strategies. The consensus was obtained through an iterative process that began with presentation of the state-of-the art in each domain followed by plenary and group discussions. Ultimately, Consensus Conference participants reached agreement on the 21-item consensus statement.

THEME 1: PHYSICAL ACTIVITY IN CHILDREN AND YOUTH: FITNESS AND HEALTH

- Cardiorespiratory and muscular fitness levels in children and youth are strong predictors of future cardiometabolic disease, such as coronary artery disease and diabetes mellitus.
- Vigorous exercise has a marked favourable impact on cardiometabolic fitness and other cardiovascular risk factors in children and youth.
- Frequent moderate-intensity and, to a lesser extent, low-intensity exercise improves cardiometabolic fitness in children and youth.
- Physical activity is important in the treatment of many chronic diseases in children and youth.
- Children and youth participating in leisure-time sports have higher levels of physical activity, fitness and overall cardiometabolic health, and better musculoskeletal health when involved in weight-bearing sports.
- Field-based testing of cardiorespiratory fitness and waist/height scores, is a valuable tool for preliminary assessment and identification of children and youth with cardiometabolic risk.

THEME 2: PHYSICAL ACTIVITY IN CHILDREN AND YOUTH: COGNITIVE FUNCTIONING

- Physical activity and cardiorespiratory fitness are beneficial to brain structure, brain function and cognition in children and youth.
- Physical activity before, during and after school promotes scholastic performance in children and youth.
- A single session of moderate physical activity has an acute benefit to brain function, cognition and scholastic performance in children and youth.
- Mastery of fundamental movement skills is beneficial to cognition and scholastic performance in children and youth.
- Time taken away from academic lessons in favour of physical activity has been shown to not come at the cost of scholastic performance in children and youth.

THEME 3: PHYSICAL ACTIVITY IN CHILDREN AND YOUTH: ENGAGEMENT, MOTIVATION, PSYCHOLOGICAL WELL-BEING

- Engagement in physical activity has the potential to positively influence psychological and social outcomes for children and youth, such as self-esteem and relationships with peers, parents and coaches.
- An autonomy supportive, mastery focused and caring/socially supportive environment, positively influences children's and youths' self-determined motivation, physical activity behaviour and holistic well-being.
- Close friendships and peer group acceptance in physical activity are positively related to perceived competence, intrinsic motivation and participation behaviour in children and youth.
- Parental attitudes and behaviours are strongly related to children's and youths' self-perceptions, motivation and physical activity.
- Systematic and deliberate training enables teachers and coaches to create a positive motivational environment for children and youth.

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- Physical activity-based positive youth development programmes that have an intentional curriculum and deliberate training are effective at promoting life skills (eg, interpersonal, self-regulation skills) and core values (eg, respect and social responsibility) in children and youth.

THEME 4: PHYSICAL ACTIVITY IN CHILDREN AND YOUTH: SOCIAL INCLUSION AND PHYSICAL ACTIVITY IMPLEMENTATION STRATEGIES

- Participation of children and youth in physical activity and sport is influenced by socioeconomic status, gender, ethnicity, sexual orientation, skill level and disabilities.
- Culturally and contextually relevant physical activity opportunities help to recognise and account for the diverse lives of children and youth, and to promote social inclusion.
- Social inclusion can be promoted by providing equal access to opportunities within physical activity and sports settings regardless of children and young people's social, cultural, physical and demographic characteristics.
- Whole school approaches and the provision of physical activity-conducive environments such as bike lanes, parks and playgrounds, are both effective strategies for providing equitable access to, and enhancing physical activity for, children and youth.

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BRITISH JOURNAL OF SPORTS MEDICINE

Physical activity boosts kids' brain power and academic prowess

Time taken away from lessons for it is time well spent, says consensus statement

Exercise boosts kids' and young people's brain power and academic prowess, says a consensus statement on physical activity in schools and during leisure time, published online in the ***British Journal of Sports Medicine***.

Time taken away from lessons for physical activity is time well spent and does not come at the cost of getting good grades, say the 24 signatories to the statement.

The Statement, which distils the best available evidence on the impact of physical activity on children and young people, was drawn up by a panel of international experts with a wide range of specialisms, from the UK, Scandinavia, and North America, in Copenhagen, Denmark, in April of this year.

It includes 21 separate statements on the four themes of fitness and health; intellectual performance; engagement, motivation and wellbeing; and social inclusion, and spans structured and unstructured forms of physical activity for 6 to 18 year olds in school and during leisure time.

It says that:

- Physical activity and cardiorespiratory fitness are good for children's and young people's brain development and function as well as their intellect
- A session of physical activity before, during, and after school boosts academic prowess
- A single session of moderately energetic physical activity has immediate positive effects on brain function, intellect, and academic performance
- Mastery of basic movement boosts brain power and academic performance
- Time taken away from lessons in favour of physical activity does not come at the cost of getting good grades

In terms of the physiological benefits of exercise, the Statement says that cardiorespiratory and muscular fitness "are strong predictors" of the risk of developing heart disease and type 2 diabetes in later life, and that vigorous exercise in childhood helps to keep these risk factors in check.

But frequent moderate intensity and, to a lesser extent, low intensity exercise will still help improve kids' heart health and their metabolism, while physical activity is a key component of the treatment of many long term conditions in 6-18 year olds.

But the positive effects of exercise are not restricted to physical health, says the Statement. Regular physical activity can help develop important life skills, and boost self esteem, motivation, confidence and wellbeing. And it can strengthen/foster relationships with peers, parents, and coaches.

And just as importantly, activities that take account of culture and context can promote social inclusion for those from different backgrounds, ethnicities, sexual orientation, skill levels and physical capacity.

Incorporating physical activity into every aspect of school life and providing protected public spaces, such as bike lanes, parks and playgrounds "are both effective strategies for providing equitable access to, and enhancing physical activity for, children and youth," says the Statement.

Notes for editors:
Consensus Statement: The Copenhagen Consensus Conference 2016: children, youth and physical activity in schools and during leisure time doi 10.1136/njsports-2016-096325

Konsensus konference: Børn, unge og fysisk aktivitet

24 forskere med forskellig videnskabelig baggrund var samlet i Snekkersten den 4. – 7. april 2016 for at nå frem til en evidensbaseret konsensus om effekterne af fysisk aktivitet for børn og unge i forhold til fysisk form, sundhed, læring og kognitiv funktion, motivation, velvære og social inklusion. Desuden var der fokus på at opnå konsensus om uddannelsesstrategier og implementering af fysisk aktivitet. I denne kontekst er børn og unge defineret som 6-18 årige skolebørn. Fysisk aktivitet er et overordnet begreb, der betegner mange strukturerede og ustrukturerede aktiviteter både i og udenfor skolen, hvor børn og unge leger og er aktive. Fysisk aktivitet inkluderer organiseret sport, idrætsundervisning, udendørsaktiviteter, programmer for udvikling af motoriske færdigheder, frikvarterer og aktiv transport som gang og cykling. Alle disse aktivitetstyper er udviklingsmæssigt egnede til at facilitere at børn og unge påbegynder og opretholder en fysisk aktiv livsstil, så de opnår de sociale, psykologiske og fysiske sundhedseffekter, som deltagelsen i fysisk aktivitet kan bibringe. Nedenfor er konsensuskonferencens konklusioner i form af konsensus statements. Disse statements er opnået via en iterativ proces med state-of-the-art præsentationer samt plenum- og gruppediskussioner. Der blev opnået afsluttende enstemmighed konsensuskonferencens deltagere.

Tema 1

1) Børn og unges aerobe og muskulære fitness er stærke prædikatorer for fremtidig udvikling af kardiovaskulære og metaboliske sygdomme, så som type 2 sukkersyge og iskæmisk hjertesygdom.

2) Fysisk aktivitet med høj intensitet har markant positiv effekt på kardiovaskulær og metabolsk fitness og andre kardiovaskulære risikofaktorer hos børn og unge.

3) Hyppig fysisk aktivitet med moderat intensitet, og i mindre grad fysisk aktivitet med lav intensitet, forbedrer kardiovaskulær og metabolsk fitness hos børn og unge.

4) Fysisk aktivitet er vigtig i behandlingen af mange kroniske sygdomme hos børn og unge.

5) Foreningsaktive børn og unge er mere fysisk aktive, er i bedre fysisk form, og har bedre kardiovaskulær og metabolsk sundhed end de der ikke er foreningsaktive, samt bedre muskel-knoglesundhed, hvis de dyrker vægtbærende idrætsgrene.

6) Felttestning af aerob fitness og talje/højde-ratio er et værdifuldt redskab til at vurdere og identificere af børn og unge med forhøjet risiko for hjertekarsygdomme.

Tema 2

1. Fysisk aktivitet og aerob fitness er gavnlig for hjernens struktur og funktion, samt for kognitive funktioner hos børn og unge.

2. Fysisk aktivitet før, under og efter skole fremmer børn og unges præstation i skolen.

3. En enkelt session med moderat fysisk aktivitet har en akut, gavnlig effekt på hjernefunktion, kognition og præstation i skolen hos børn og unge.

4. Beherskelse af fundamentale motoriske færdigheder er gavnlig for kognition og præstation i skolen hos børn og unge.

5. Når der tages tid fra boglig undervisning til fordel for fysisk aktivitet, har det vist sig ikke at være på bekostning af børn og unges præstation i skolen.

Tema 3

1. Involvering i fysisk aktivitet har potentiale til at påvirke børn og unge positiv i forhold til psykologiske og sociale faktorer som for eksempel selvværd og relationer med kammerater, forældre, trænere.

2. Et miljø, der understøtter selvbestemmelse, har fokus på mestring og er omsorgsfuldt og socialt understøttende påvirker positivt børn og unges motivation, fysiske aktivitetsniveau og velvære.

3. I forbindelse med fysisk aktivitet er tætte venskaber og accept fra kammerater positivt relateret til børn og unges indre motivation, deltagelse i fysisk aktivitet, og for hvordan de opfatter deres egne kompetencer.

4. Forældres holdninger og adfærd er stærkt relateret til børn og unges selvopfattelse, motivation og deltagelse i fysisk aktivitet.

5. Systematisk træning muliggør, at lærere og trænere kan skabe et positivt og motiverende miljø for børn og unge.

6. "Positive youth development (PYD)"-programmer, bestående af fysisk aktivitet med et planlagt pensum og bevidst træning, er effektive til at fremme sociale og emotionelle færdigheder og værdier som respekt og socialt ansvar hos børn og unge.

Tema 4

1. Børn og unges muligheder for at deltage i fysisk aktivitet og idræt afhænger af deres socioøkonomiske status, køn, etnicitet, seksuel orientering, færdighedsniveau samt fysiske og psykiske forudsætninger.

2. Fysisk aktivitet, der tager højde for børn og unges forskelligartede baggrunde og forudsætninger bidrager til at fremme social inklusion.

3. Social inklusion kan fremmes ved at tilbyde adgang til fysisk aktivitet og ligeværdige muligheder for deltagelse uanset børn og unges forudsætninger.

4. Helhedsorienterede indsatser på skoler og aktivitetsfremmende fysiske omgivelser er begge effektive strategier for at give ligeværdig adgang til og øge fysisk aktivitet for børn og unge.