POLICY BRIEF

Physical activity and health in Africa for children and adolescents with disabilities: COVID-19 and beyond

FOR HOMES, SCHOOLS AND COMMUNITIES

KWAZULU-NATAL PROVINCE
SPORT AND RECREATION
REPUBLIC OF SOUTH AFRICA

KWAZULU-NATAL SPORTS COMMISSION

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

Towards Research Leadership
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Developing Research Innovation, Localisation and Leadership in South Africa

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Message from the MEC

Physical activity for all!

The World Health Organisation and public health authorities around the world are taking action to contain the COVID-19. The outbreak of Covid-19 and the resultant national lockdown, has placed a complete halt to all sporting activity, especially contact sport. However, in South Africa, as well as other country lockdown restrictions have been gradually eased and life is slowly returning to normal, with communities getting back to the field of play. However, certain populations, in particular, children and adolescents with disabilities, may be impacted more significantly by COVID-19. It is imperative that communities are made aware of the importance of strict adherence to Covid-19 regulations.

We welcome the writing of these guidelines, as they will serve as an important source of information for physical activity recommendations for children and adolescents with disabilities at homes, schools and communities. A four-pillar approach to physical activity participation has been developed, taking into consideration the COVID-19 health and safety guidelines. This document also includes a simple infographic, summarising the guidelines for physical activity.

We wish to thank the academics from the different institutions of higher learning who have collaborated with us to put together this document. This is a clear demonstration of how different sectors of society can make an impact in changing the lives of communities if they work together, utilising our strengths in a positive way. We encourage sports structures, event organisers, schools and parents to learn as much as possible about prevention measures in order to ensure safety from Covid-19.

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Introduction

The World Health Organisation declared the corona virus, COVID-19, as a pandemic with public health authorities globally taking action to contain the outbreak. With over 68 million confirmed cases of people infected, the COVID-19 pandemic continues to spread across the globe, with almost 45 million recoveries, and over 1.6 million global deaths (as at 10 December 2020). The message to alleviate the impact of the disease includes a call to educate people on the need to restrict or limit social interaction, on the the importance of wearing personal protective equipment such as face masks and shields, and encouraging common hygiene practices.

During the pandemic, individuals have understandably become more anxious about their safety, resulting in reductions of physical activity, despite public settings such as parks, beaches and gyms becoming available with the easing of lockdown measures. Children and adolescents living with disabilities are particularly vulnerable to limitations to their mobility during the pandemic. Furthermore, they may be more susceptible to serious complications from COVID-19, if they have underlying health conditions, such as obesity, diabetes and asthma.

Engaging in various activities including physical activities, sports and recreation offers an opportunity to improve quality of life and rehabilitation outcomes for young people living with disabilities (Kim, Kim, MaloneBeach & Han, 2016). It is well established that participation in physical activity not only improves physical health and well-being in young people living with disabilities, but has many positive psychosocial benefits, including mental health and social interaction.

As South Africa and other African countries begin to re-open as an economic imperative, there is an urgent need to provide children and adolescents with disabilities opportunities to engage in enjoyable physical activity in a safe environment. As much as possible, children should be allowed a choice of activities which, will encourage their participation, and support physical and mental health and social well-being. These opportunities should ideally be offered, without increasing the risk for COVID-19 community transmission, and with a long-term view towards sustainable and equitable implementation. This document seeks to provide guidance on physical activity and health for children and adolescents living with disabilities in Africa, especially during COVID-19 and beyond.

This policy brief is about physical activity for health benefits among children and adolescents living with disabilities. Whilst numerous definitions of disability exist across the globe, for the purpose of this document disability refers to people who have long term physical (e.g. spinal cord injury), sensory (e.g. visual impairment), cognitive (e.g. learning difficulties), and/or

mental impairments (e.g. depression) which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (United Nations Convention on the Rights of Persons with Disabilities, 2020).

What is the purpose of this policy brief?

This policy brief targets children and adolescents and primarily focuses on guiding decision makers at provincial, district and local levels in the development and subsequent implementation of policies and practices that promote physical activity for children and adolescents with disabilities, by creating an equitable healthy and safe, home, school and community environment.

This framework can also serve as a tool to assist schools and other stakeholders in implementing safe and enjoyable physical activity practices and programmes in schools, communities and the home.

This document may be used or incorporated as part of an existing school policy, or as a supplementary policy guide, applied during the COVID-19 pandemic. It does not address sporting activities.

What is physical activity?

Physical activity can be simply defined as any movement of the body that uses energy. This includes, walking, gardening, doing chores at home, playing soccer, or even dancing. For the purpose of this document, physical activity is defined as any bodily activity that enhances or maintains physical fitness, functional abilities and overall health and wellness. Physical activity is performed for various reasons, including strengthening muscles and the cardiovascular system, developing athletic skills, weight loss or maintenance, and for enjoyment. It is also important for maintaining physical fitness and can contribute positively to building and maintaining a healthy bone density, joint mobility, promoting physiological well-being, and strengthening the immune system.

How much physical activity is recommended for children and adolescents?

The amount of physical activity can vary depending on the disability. For certain disabilities like cerebral palsy, depending on the severity of the disability, the recommended amount of physical activity can be low, while for others, the general recommended guidelines are appropriate. In some cases, a medical practitioner must be consulted to confirm that it is safe to participate in physical activity.

Preschool-aged children (ages 3-5 years)

- Preschool-aged children should be physically active throughout the day for healthy growth and development.
- Preschool-aged children should accumulate at least 180 minutes of any physical activity daily, and this should include at least 60 minutes of energetic play that raises their heart rate and makes them 'huff and puff', i.e. moderate intensity.
- These activities could be structured into practical sessions that include active play over smaller sessions.

School-aged children and adolescents (ages 6-18 years)

- School-aged children and adolescents should do and average of 60 minutes per day of moderate (raises their heart rate, makes them breathe harder) to vigorous (raises their heart rate, makes them breathe harder and its difficult to talk) intensity, mostly aerobic physical activity per week.
- Vigorous-intensity aerobic activities, as well as those that strengthen muscle and bone should be incorporated at least 3 days a week.

Children and adolescents with disabilities should be supervised to ensure that the activity is safe until they can perform the activity independently. Resources, equipment, and facilities used for physical activity should be maintained and potential threats must be eliminated. Activities should be adapted and modified according to the skill or developmental level of the child. These activities can be discussed with specialised rehabilitation professionals to address the specific needs of each child.

It is important to ensure that all environments are inclusive and can foster the integration of disabled children and non-disabled children in physical activities.

Physical activity recommendations for children and adolescents during COVID-19

The four-pillar approach is recommended to promote physical activity within homes, schools and community environments for children and adolescents with disabilities, specifically to reduce the impact of COVID-19 on their health and wellbeing.

1 Protection and safety measures

- Encourage handwashing before and after physical activity. This may not always be practical, but the risks may be small because the people remain in the same context and with the same people. For example, after entering a classroom and sanitising hands, a teacher could include short physical activity breaks during classroom lessons. This might include moving around the room.
- Sanitising stations should be made accessible to learners of all abilities.
- Parents, caregivers and teachers should create awareness and teach the basics about COVID-19, e.g. what it is, how it is transmitted, and how to avoid infection.
- Parents and caregivers should encourage open communication with children about COVID-19, e.g. **https://bit.ly/3gW13g3**.
- Children should not be physically active when sick or feeling very fatigued. They should reduce or stop activity if they feel faint after being active or fatigued during the day, or suffer from persistent aches and pains after being active.
- Parents, caregivers and teachers should be should be encouraged to see a healthcare practitioner for advice if a child shows signs of fever, headaches, dry cough, body aches etc.
- COVID-19 screening protocols must be made mandatory prior to entry into schools and or community centres, e.g. temperature checks and COVID-19 risk assessment (online application and/or written/online survey).
- Mask wearing is recommended as much as possible and adaptations should be developed to make this possible irrespective of the disability. The mask has to accommodate the child's disability and be safe in terms of underlying health conditions. (**https://bit.ly/2INT9tU**)
- Children should not share equipment, such as bats, balls or skipping ropes, with others and if shared, the equipment must be disinfected after each use.
- Parents or caregivers should consult a healthcare practitioner before their child begins a new programme of physical activity.
- Previously sedentary children who begin physical activity programmes should start with short intervals of physical activity (5-10 minutes) and gradually build up to the desired level of activity.

2 Physical environment design and operations

- Parents or caregivers should create safe spaces for physical activity.
- Create spaces where individual children can perform physical activity that conforms to requirements of social distancing, e.g. taking turns, and/or playing games such as skipping and hula-hooping or taking a ball through a labyrinth.
- Physical activity should be done in small groups to create space for social distancing of at least 1.5 metres between each child. When caregiving is necessary, even smaller groups need to be considered. If possible, stickers or markers should be placed on the floor to indicate to the children how far they must be from each other while participating in the activities.
- The use of equipment (balls, hula-hoops and homemade hand-held weights) is not necessary for physical activity, but its usage is encouraged if available.
- Physical activity should take place outdoors where possible, or in a well-ventilated room and/or windows should be open to allow for maximum ventilation.
- If physical activity takes place indoors, the room must be cleaned and surfaces sanitised before and after each physical activity session.
- Older children can be encouraged and taught to sanitise after using spaces or pieces of shared equipment. If for whatever reason, it is not possible for the child to sanitise shared use equipment or spaces, then, caregivers may assist.
- Physical activity in communities should only take place in small groups.
- Children should be encouraged to bring their own playing equipment, or sanitiser and paper towels maybe provided to disinfect equipment between users.
- Facilities should be deep cleaned and sanitised on a regular basis.
- Squares may be drawn or tape placed on the floor to indicate the area where the child may move in.



3 Physical activity and physical literacy practices (age and disability appropriate)

- It is important that all physical activities are age and disability appropriate. Activities may need to be modified or adapted.
- It maybe possible to adapt traditional indoor playground games, outdoor activities (e.g. hide and seek, skipping), or innovate (e.g. building an obstacle course, playing balloon volleyball, making an action movie or learning to juggle). https://bit.ly/3oXDWGh; https://bit.ly/2ISPDi4
- Parents or caregivers should utilise online resources for physical activity ideas, e.g. https://bit.ly/2DuhZwq; https://uni.cf/2DonnRw; https://uni.cf/32RxtmF; https://bit.ly/2KrrAqY. Applicable and appropriate activities should be used.
- Apparatus or equipment can be adapted accordingly for children that will be used in the physical activity programmes.
- Structured physical activity games as well as short breaks and classroom activities can be used to move the body and exercise muscle groups.
- It is important that all children can understand what is expected. Use visual and auditory cues. Speak less, show more and keep verbal directions to a minimum.
- Make sure that children and adolescents are involved in selecting the activities that they can complete successfully. This will help to increase their confidence and motivate them to continue with the same and different activities.
- While it is important not to underestimate the children, patience is required. Make sure that proper goals are set for each child.
- Activities that promote cardiovascular fitness and strength should be encouraged but maintain social distancing, e.g. aerobics, dance, high intensity-interval training, hopping, cycling, running, swimming, and jumping and keep them fun.
- Activities and games that promote agility, balance, co-ordination and speed are important but maintaining social distancing is essential whlile still keeping things fun.
- Encourage activity circuits that incorporate mobility, strength and power.
- Encourage sport-specific activities and drills for older children and adolescents that can be performed while observing social distancing and appropriate sanitising and the use of equipment.

4 Physical activity sustainability

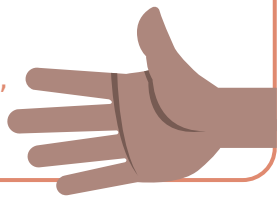
- Parents or caregivers should make a schedule of structured daily home activities. Routine/timetables are beneficial. Make the participating in physical activities a routine.
- Get the whole family involved to train/ play with the child.
- Themes should be used in activities when working with the younger children (Zoo, Beach etc.).
- Ensure that all activities are fun, age and disability appropriate.
- Make sure that in the beginning the activities are easy so that the child feels a sense of accomplishment.
- Let the child choose an activity he/she likes to do; this way you will keep them engaged in the activities/lesson.
- Use different activities to keep child's attention.
- Make sure that all the activities are modified and adapted to fit the needs of the child.
- Make use of peer-partners or peer-led activities where the children can help each other.
- Try to make the child part of the physical activity planning.
- Mask use of sensory- and perceptual-motor activities to promote the development of each child.
- Focus on visual and auditory stimulation activities to help with the sensory integration development.

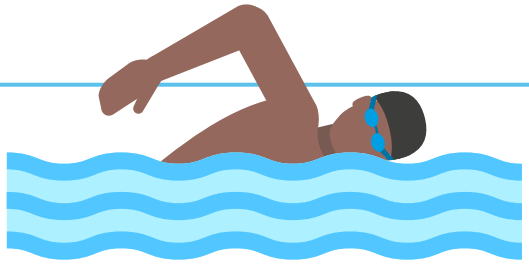
How to minimise the risk of injury while participating in physical activity

It is important to minimise the risk of injury. Common problems that can occur and how to avoid them include:

Skin

- Prevent blisters on hands with gloves
- Prevent wheel-burns by covering the area with protective material
- Decrease bruising by placing pads where needed, i.e. bony areas and retaining straps
- Cover blisters
- Adapt apparatus, like softer balls



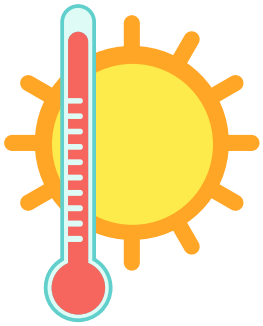


Swimming

- Protect skin
- Place mats at the poolside during transfers
- Protect the feet
- Use sun screen or a sun hat

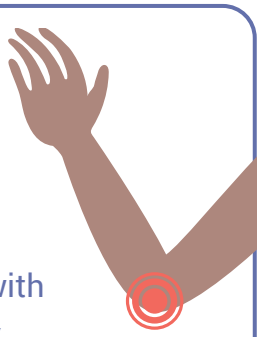
Hyperthermia (High body temperature)

- Take into account the temperature if exercising outdoors
- Encourage adequate hydration, i.e. water.
- Avoid direct sunlight
- Try to avoid training outdoors between 12 – 3 pm outside



Muscles & Joints

- Monitor for overuse
- Closely observe any muscle or joint pain
- Maintain flexibility with stretching every day



Pressure Sores

- Use cushions and padding where needed
- Change position and shift weight regularly

The use of adapted apparatus and equipment

Points to take into consideration that will help to ensure optimum development of motor skills while using the adapted apparatus:

- Apparatus must accommodate the growth of the child and must be adapted to the specific needs of the child.
  - Different sizes of balls e.g. tennis balls/netball balls/soccer balls/balloons/bean bags
  - Different weight of balls e.g. 500g/1kg/2kg
  - Different shapes/sizes/colours of hula hoops
- Adapt your apparatus to encourage the child to play and be more active
  - Make use of different shapes/colours that the children can throw to/hit/kick to
  - Bells at the end of targets that can make a noise if the child hits the target
- All adaptions must always take safety into consideration.

Call to action

- Many children with disabilities might not have access to facilities or digital platforms. It is vital then that alternative communication aids should be considered to communicate physical activity programmes to this community. Disabilities are not just restricted to physical disabilities but also visually, hearing and intellectual disabilities. All should be addressed.
- Children with disabilities must have equal access as other children to participation in play, recreation and leisure activities.
- The promotion and awareness of leisure, recreation and physical activity opportunities must be encouraged to children with disabilities and to their parents/ caregivers.
- The education, public health, and school health sectors are each called for greater alignment that includes, integration and collaboration between education leaders and health sectors to improve each child's cognitive, physical, social, and emotional development. (**https://bit.ly/3gMl0r0**)
- For children in residential settings, visitation should be monitored, control measures should be in place for those that do not feel well and mental health of the children should be sought after.
- Stakeholders should be creative, drive and exchange ideas for disability appropriate adaptations of COVID-19 safety measures (e.g. mask-wearing).
- Teachers and parents need to actively engage in, and with activities to ensure the success of physical activity promotion for children with disabilities in schools and communities.
- Communities should aim for inclusivity in order to ensure that all children are given the opportunity to develop irrespective of the disability.
- Stakeholders need to ensure the integration of children with disabilities into everday life by removing barriers.
- Communities and governing structures should aim to develop therapeutic recreation sessions where children could express their feelings and develop their motor skills.
- Physical activity must be enabled and encouraged, despite the COVID-19 pandemic.

Physical activity and health in Africa for children and adolescents with disabilities: COVID-19 and beyond

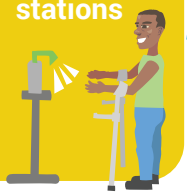
HOME, SCHOOLS AND COMMUNITIES

Physical activity recommendations (6-18 years)

1. Protection and mitigation measures
2. Physical environment design and operations
3. Physical activity and physical literacy practices
4. Physical activity sustainability

The four-pillar approach is recommended to promote physical activity within homes, schools and community environments for children and adolescents with disabilities, specifically to reduce the impact of COVID-19 on their health and well-being.

Sanitising stations



Sanitise equipment

Aim for at least **60** minutes every day

Create awareness

Appropriate healthcare

Smaller groups

Social distancing

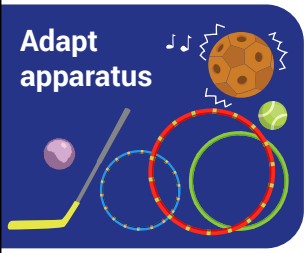
Good ventilation

Floor markings

Indigenous games

Circuit training

Adapt apparatus



Visual cues

Sweat more to raise your heart rate.

All activities should be safe and fun to do.

Peer-led

Family-time

Routines

Activity choice

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