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## THE IMPORTANCE OF HIKING AND THE ROLE OF THE HIKING GUIDE IN SUPPORTING PEOPLE WITH AUTISM

### **Abstract:**

*For many families, the idea of going out for walks and family adventures can be a dream that is erased by the determination of autistic spectrum in a child. Gaps in the health and quality of life of young people with autism spectrum disorder (ASD) are well documented. One particularly noticeable gap that affects both physical health and quality of life is in the area of outdoor recreation, particularly including outdoor recreation activities such as biking, hiking, running, canoeing/kayaking, horseback riding, and skiing.*

*Of the many outdoor activities to promote physical fitness, hiking is perhaps the most versatile and accessible for people with ASD. Hiking is a natural extension of walking. It is one of the first skills we acquire, one of the most important activities in everyday life and one of the few forms of recreation that does not require specific equipment and conditions. On the other hand, except for perhaps the most densely populated urban areas, there are almost always trails nearby. Lately even urban hikes that move around the city are becoming more and more popular.*

*Whether you're climbing the mountains at an expert level or hiking a trail, hiking gets your kids moving, which is of utmost importance in our modern society, when childhood seems to be filled more and more with time spent in front of the screens, and for children with autism this can become a serious problem.*

*The main goal of this paper, on the one hand, is to increase awareness of the importance of hiking for psychophysical health, both for people from the general population and for people with ASD, but also to give recommendations for the approach and the way of organizing hiking activities for people with ASD, on the other hand.*

**Keywords:** *autism spectrum disorder, hiking, guide*

## Introduction

Hiking is an activity that offers invaluable experiences and benefits. Anyone who has tried hiking will confirm that it's more than just an activity – it's a way of life. Going to the mountains not only offers the opportunity to explore nature and natural beauty, but also gives people the opportunity to face certain challenges, to become physically active, improving their appearance and fitness, and to enjoy the peace and quiet of the mountains. It is a popular recreational activity around the world that can be done as a day trip or as a multi-day hiking tour. Hiking can be done individually or in a group and can be a hobby, recreation or sport. Depending on the level of experience and physical ability, hikers can choose the trails and routes that best suit their needs and interests (Festau, 2002).

**Hiking is important for several reasons** (Nordbø, Prebensen, 2015):

- **Physical health:**Hiking is an activity that has a positive effect on physical endurance, the cardiovascular system and general physical fitness.
- **Mental health and well-being:**Research show that time spent in nature can reduce stress, tension, and depression, and improve mental well-being. Mountains and the natural environment have a calming effect and can help us relax and improve our mood.
- **Connection with nature:**Hiking allows us to connect with nature and experience our belonging to it. This connection with nature can increase awareness and concern for the environment.
- **Formation of team spirit and social interaction:**Hiking can be practiced in a group or with friends, which allows us to develop team spirit, cooperation, and social interaction.
- **Adventure and personal development:**Hiking offers us the opportunity for challenges, adventure, and personal development. It pushes our limits and helps develop confidence, boldness, and resilience. Hiking challenges different aspects of the personality and can have a positive effect on self-esteem and the development of personal potential.

In order that recreation and enjoyment do not turn into injury and a bad experience, it is necessary to take into account all the safety aspects of hiking, such as proper clothing, adapting the activities to one's own physical abilities, being informed about the conditions on the mountain and using appropriate equipment. Hiking guides and mountaineering organizations can provide information and support for the safe performance of mountaineering activities. Mountaineering guides are trained, experienced people whose purpose is to guide mountaineers and provide them with the necessary information and support for the safe and successful performance of mountaineer activities. They have extensive knowledge of specific mountain regions and routes, orientation, and rescue skills, as well as knowledge of safety protocols and first aid. Hiking

guides are often certified by organizations or government institutions, and their professionalism and qualifications are important to ensure a quality and safe experience on the mountain. The mountain guide performs the following tasks (Dyck, Schneider, Thompson, Virden, 2003):

- **Route planning and review:** The guide analyses terrain, conditions, and weather forecasts to determine the safest and most appropriate climbing plan. He/she examines and evaluates the paths and routes, and selects those that guarantee the greatest safety and avoidance of risks.
- **Orientation and navigation:** The guide has skills for orientation in mountain conditions, using maps, compasses and GPS devices. He/she can find the shortest and safest routes and guide hikers along the right path.
- **Safety and rescue:** The mountain guide takes care of the safety of the group, offers appropriate safety advice, instructions on the use of safety equipment and the application of hiking rules. The guide is able to react and carry out first aid or rescue in case of need.
- **Information and education:** The guides have knowledge about the nature, geology, flora and fauna of the mountains. They can share this information with hikers and educate them about the importance of nature.
- **Experience and pleasure:** Mountain guides create an environment of pleasure and enjoyment. They create support, motivation, and enthusiasm in the group, allowing climbers to test their limits and create unforgettable climbing experiences.

With the increase in awareness of the need for greater social interaction of persons with disabilities and their inclusion in recreational activities, as well as the removal of children with disabilities from in front of the screens, in recent times it has led to an increasing involvement of children and adults with disabilities in the hiking tours. For that reason, mountain guides should be ready to accept these people in their group and respond accordingly to their needs and to all the challenges they will face.

We can especially talk about the trend of including children and young people with ASD, primarily because of the increasing number of people diagnosed in the spectrum, but also the characteristics of their development. Motor problems such as clumsiness, toe-walking and altered gait are well documented in children with autism, also numerous studies have found that young adults with autism have an unusual gait and problems with fine motor skills. These individuals take longer to take a step or a full stride, and have shorter strides than others, so this means that they walk more slowly overall. Outdoor activities and playing outside help children develop a variety of skills,

such as coordination, balance, sensory play, dexterity and more. On the other hand, with the child's stay in nature, he is encouraged to come out of his shell and see what the world has to offer him, unlike the TV or computer screen (Oreskovic et al. 2019; Goodwin, Peco, Ginther, 2009).

Based on the previously indicated, the main goal of the paper is to highlight what the mountain guide should know when there is a person with an autistic spectrum disorder in the group, all with the aim of encouraging mountain guides to include people with ASD or other disabilities in their groups more often, but also encouraging families to actively include their children with ASD in recreational hiking.

### **1. What the hiking guide should be aware of when there is an individual with ASD in the group**

Any activity that involves children/people with ASD requires more planning than one that does not. Perhaps the most important aspect is to plan a hike that correlates with the physical abilities of the children/people participating, first of all starting from the fact that motor and kinesthetics skills can be difficult for people with autism to master. The term autism spectrum disorder itself indicates that it is a wide range of symptoms or behaviours that can vary from ways that are barely noticeable to those that seriously interfere with a person's daily life. This is important to remember because anything we discuss has to be put through the lens of an individual unique situation (Goodwin, Peco, Ginther, 2009).

#### **1.1. General recommendations**

***Understanding Autism:*** Learn about the autism spectrum disorder and its common features, such as difficulties with social interaction, communication, and sensory processing. Each person with ASD is unique, so be prepared for a wide range of abilities and needs. By understanding and meeting the unique needs of individuals with autism, hiking guides can help create a positive and enjoyable experience for all group members (Christensen, Romero, 2016; Worton, 2020).

***Communication:*** People with autism may need extra time to process information or may have difficulty understanding abstract concepts. It is essential to use clear, concise and simple language when giving instructions or information.

***Routines and structure:*** People with autism function better in a structured environment. They need to establish routines for the trip and provide a clear schedule to help them feel comfortable and prepared.

***Sensory sensitivities:*** Be aware of potential sensory sensitivities, such as loud noises, bright lights, or unpleasant textures. We should therefore try to minimize these triggers and offer alternatives or breaks when necessary. At the very beginning, we inform the person or parents/guardians of the need to wear

a light hat for sun protection, which the person could wear, as well as glasses to reduce light stimulation.

**Social support:** It is essential to encourage inclusiveness among group members and to build a supportive atmosphere where the individual with autism feels welcome and included.

**Flexibility and adaptability:** We should always be prepared to make adjustments to the schedule or activities depending on the needs and comfort level of the individual with autism. Let's remain patient and be understanding if changes are needed.

**Safety precautions:** It is crucial to ensure that the person with autism understands and follows safety instructions. They may need extra support or supervision during certain activities to ensure their safety.

**Encouraging independence:** To enable the individual with autism to participate in activities and make decisions, while providing the necessary support and assistance.

**Companion system:** We should always have the option of pairing the ASD person with a friend or support person who can provide help and encouragement along the journey.

**Getting feedback:** After the trip, it would be useful to ask for feedback from the person with autism, their family or the person who provided support during the trip in order to better understand their needs and make improvements for future trips.

## 1.2 Route planning

- We should always meet the person who will plan with us. It is useful to take care to find out what is more interesting to him and what is, in order to offer him a real challenge. Climbers with poor balance, coordination or muscle tone may need more time and support. At first it can be characteristically frustrated when we make them work hard, so we need to get on the signs and adjust according to needs (Wall-Reinius, S., Godtman, K. K., & Ioannides, 2023).
- When it comes to beginners, a person with ASD appears in such an activity for the first time, a beginner's path (flat, paved stone path, shorter than 2 km) should be found within 15 minutes of the person's home. All in order to detect major changes and exposure to different games. We start with 10, 20, 30 minutes of walking, each time we increase. After successfully passing the first route 2 to 3 times, we choose another basic one, which is approximately the same length, and after mastering the base, we can move on to more distant and more serious routes (Wall-Reinius, S., Godtman, K. K., & Ioannides, 2023; ASD Roadmap, 2023).

## 1.3. Specific recommendations

**About Shoes:** when hiking, shoes are the most important part of the equipment and it is necessary to make an appropriate choice, but when it comes

to people with ASD, then the situation becomes more specific. Many children with autism have difficulty putting on their shoes and keeping them on their feet, which is mostly due to sensory integration disorders. Due to delays in fine motor skills, many children with autism find it difficult to tie their shoelaces, so putting on shoes often becomes a stressful situation that can cause tantrums (Worton, 2020; GCT, 2021). How to help a person with ASD to choose the right footwear:

- Choosing hyposensitive socks - children who suffer from sensory integration disorders are often sensitive to the seams or fabric of their socks, which makes wearing shoes even more difficult. We can try to use special socks suitable for increased sensitivity, socks that are made of soft, pleasant material, which allows the skin to breathe and does not restrict movements, without edges and which give a feeling of comfort to sensitive feet (Rashikj-Canevska, 2022).
- Choose hiking shoes with a wide toe area and adequate ankle support for comfort, with a sole that does not slip, but is also easily flexible and does not restrict the flexion of the foot.
- Choosing shoes or footwear made of breathable materials to keep feet dry.
- Shoes should have adjustable fasteners, such as laces, zippers, or adhesive tapes, for an adjustable fit.
- Consult with the person with autism or their caregiver (companion, supporter and parent) about any specific footwear preferences or sensory sensitivities.

*For clothes:* More than 90% of autistic children and adults had sensory responsiveness interfering with their everyday lives, and their symptoms were persistent across all age groups and IQ levels. They react to sensory stimuli with a behaviour that is not comparative to the grade and nature of the sensory stimulation. Autobiographical reports from autistic individuals explained that their uncommon sensory experiences were sometimes devastating and could act as incentives for social withdrawal (Giesbrecht, 2023).

Although layering clothing made of synthetic materials or natural wool to keep the skin dry is recommended, as well as wearing vests made of wool or other material to maintain optimal body temperature, using waterproof and breathable outer layers, such as a raincoat and pants, to protect against wet (damp) conditions, for people with ASD, care should be taken that clothing is made of light materials that dry quickly, do not cause additional sensory stimulation, have minimal edges, labels and textures. Offer custom clothing options, such as clothing with easy closures (patches at neck, adhesive tape), if needed and provide guidance (step-by-step instructions) on how to adjust clothing for optimal comfort and temperature regulation (Kyriacou et al. 2023).

**Regarding food consumption:**

- **Dietary restrictions:** We should consult with the individual or their carer (companion, supporter and parent) about any dietary restrictions or allergies they may have. Be prepared to adapt to their specific needs by providing alternative dietary options (Elder, J. H., et al., 2006).
- **Food preferences:** People with autism may have strong preferences for certain foods or textures. We need information from the individual or their caregiver about their favourite meals or snacks in order to include them in the travel menu (Kral, T. V. et al., 2013).
- **Sensory sensitivities:** Some individuals with autism may be sensitive to the taste, texture or smell of certain foods, so it will be necessary to offer alternative options when necessary (Suarez, M. A., Nelson, N. W., & Curtis, A. B., 2013).
- **Meal planning:** Meals and snacks are planned in advance to ensure all dietary needs are met. The meal plan should be shared with the individual with autism or their caregiver so they know what to expect during the trip (Bandini, L. G., et al., 2010).
- **Keep snacks and drinks handy:** if a kids, especially one on the spectrum, can simply pull out their favourite snack while walking down the trail, it not only covers the hunger issue, but gives them a fun reward to enjoy while on their hike.
- **Structured meals:** A consistent meal schedule is maintained to help the person with autism feel more comfortable and secure. Any changes in meal plans should be communicated to the person with ASD or the parent/guardian as soon as possible (Ledford, J. R., & Gast, D. L., 2006).
- **Preparation of meals:** To offer the opportunity to the person with autism to participate in the preparation of meals if he is interested. This can help him feel comfortable and more engaged with the food being served (Moore, D., & Taylor, J. L., 2018).
- **Dining environment:** We should be aware that people with autism may be sensitive to noise, bright lighting, or a crowded dining room. Therefore, we should try to create a calm and comfortable eating environment whenever possible (Matson, J. L., & Fodstad, J. C., 2009).
- **Social support:** Encourage group members to be inclusive and supportive at mealtimes. To create a positive atmosphere that allows the person with autism to feel welcome and included.

**Regarding rest, sleep, personal hygiene and toilet**

- **Rest / Sleep:** Through a conversation with the individual or his companion, it is necessary to obtain information about their preferences

and needs for a break-rest or sleep, if the tour is an overnight stay. Some individuals with autism may prefer a private or quiet space, while others may need a familiar object from home, such as a blanket, pillow, toy, etc. to make them feel more comfortable while resting or sleeping. A schedule of active walking and rest should be made and adjusted, in order to avoid fatigue of the face and increased manifestation of the clinical picture (Koenig & Kinnealey, 2008).

- **Noise sensitivity:** Some people with ASD may be sensitive to noise, such as other people talking or snoring, so earplugs or white noise machines should always be considered to help reduce disturbances in during the rest or overnight stay (Pfeiffer et al., 2005).
- **Rest / Sleep Routines:** A consistent rest / sleep schedule is needed to help people with autism feel more secure and comfortable. They should always be informed of any changes in rest or sleep plans as soon as possible (Malow et al., 2012).
- **Personal Hygiene:** Individuals with autism need to be helped to understand and follow personal hygiene routines, such as hand washing, tooth brushing and bathing if the tour is with a sleepover. If necessary, we provide support with visual images that represent the steps (like social stories), so that they understand the processes (Reynhout & Carter, 2011). When planning each tour, the information about the way of toileting for the person with ASD, the degree of independence and the specific needs is of great importance to us. We need information on whether the person knows the sanitary facilities and knows how to use them correctly. If necessary, we should provide assistance and supervision where necessary and consider any sensory sensitivities they may have, such as the sound of toilets flushing or the touch of certain toilet articles (Kern et al., 2007; Rashikj-Canevska, Chichevska Jovanova, 2021).

## Conclusion

Hiking can have certain benefits and positive effects on people with autism. Although scientific research in this area is still experimental and limited, the following benefits have been documented:

- **Sensory stimulation and regulation:** The natural environment and mountain spaces can provide a variety of sensory stimulation such as sounds, smells and textures, which can help people with autism regulate sensory problems and improve sensory integration.
- **Increased focus and attention:** By taking a child with ASD away from the comforting flickering of screens and out into nature in the sunshine, it gives autistic children a chance to refocus on new and real things.



- **Self-regulation and relaxation:** Hiking can help people with autism self-regulate emotions and stress, thereby reducing tension and improving well-being. The natural environment can allow people with autism to feel calm and relaxed.
- **Social skills and communication:** Hiking in a group can encourage social skills and communication in people with autism. Interacting with others in the group, collaborating and sharing experiences can help them develop social skills and improve their ability to work in a team.
- **Physical health and fitness:** Hiking is a physical activity that stimulates overall physical health. Walking and climbing mountains activate the muscles, improves the cardiovascular system, and affects the improvement of the general physical condition.
- **Improvement of gross and fine motor skills, coordination and balance**
- **Development of self-confidence and self-evaluation:** Successful mountaineering and overcoming challenges on the mountain can increase the self-confidence and self-evaluation of people with autism. They can conquer the new challenge, overcome obstacles, and feel competent and successful.
- **Greater family bonding (between parents and child, siblings):** Family support is crucial for children with autism, and going out on joint explorations and adventures is a chance to spend quality time engaging and bonding with them.

It is important to note that benefits may vary from individual to individual and may depend on their interests, needs and level of functioning. Mountaineering should be adapted and individualized according to the needs and capabilities of each person with autism, and the mountain guide should mostly take care of that on the mountain.

Remember, not every path needs to be completed or paved and not every mountain needs to be climbed. Take the walk for what it is, a beautiful walk through a beautiful area and don't worry if you're not done if the kids get tired or frustrated!

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