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SurFedAUT Project

European **S**afety **F**ramework
in surf therapy for **A**UTism

Deliverable 2.1

**European Safety Framework for
Surf Therapy and Surf activities with young people
on the Autism Spectrum
(ESFA)**



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ESFA Theoretical Framework

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Foreword

This document outlines the theoretical basis and concepts of the ESFA, the European Safety Framework for inclusive and healthy surf environments for autism. It aims to provide an understanding of why occupational safety for workers dealing with young autistic children in the surf sector is fundamental to ensuring better outcomes for the neurodiverse children. Additionally, it highlights the innovative aspects of this occupational safety approach for surf workers with autistic children.

In Chapter 1, we provide a general description of the ESFA and its rationale, explaining what it is and why it is needed. In Chapter 2, we outline the main concepts of occupational safety and how they apply to surf activities with children on the spectrum, emphasizing the importance of the connection with an occupational safety company.

Chapter 3 details the target population, while Chapter 4 outlines the roles of the providers of surf therapy/surf activities and the necessary competencies. In Chapter 5, we explain how the ESFA is translated into a Manual of Best Practices for occupational safety in surf therapy and surf activities with young people with ASD Level 1. This manual, Deliverable 3.1 of the SurFedAUT Project, comprises two main components, which are outlined in this chapter.

In Chapter 6, we provide the validation of the ESFA through a risk analysis and mitigation measures from the perspective of an external occupational safety company that ensures the compliance of national and European occupational safety standards.

The ESFA, along with Deliverable 3.1, the Manual of Best Practices for occupational safety in surf therapy and surf activities with young people with ASD Level 1, forms the basis for recognizing the importance of increased occupational safety at a European level and beyond Spain in the domain of surf therapy and activities for autism. The ESFA will be piloted in four partner countries to assess the outcomes of increased occupational safety for surf workers and autistic children. It paves the way for the connection between project partners and national occupational safety companies, which can adapt the ESFA to the specific contexts, rules, and legislations of their countries, recognizing the ESFA as a preventive resource to decrease occupational risks for surf workers in surf therapy and surf activities for autism.

Chapter 1: General Description of the ESFA

1.1 The rationale of the ESFA and the SurFedAUT Project

In Europe, the prevalence rate of autism between 5 and 18 years old is 1,4% (Sacco, 2020). Spain is the first country per prevalence rate, with 73 children diagnosed with autism every 10 000. Italy, Portugal and the Netherlands have similar rates, between 72 and 70 (Zeidan, 2022). Only in Canary Islands, 20000 people are on the spectrum, and 15,5% of these is younger than 13 years old.

Autism is defined by a specific set of behaviours that affect a person's ability to interact and communicate with others. Some neurodivergent people can be challenged in typical contexts as their perceptions and functioning is different from the neurotypical. Their motor skills can be reduced, it can take more time to complete a reasoning, and they have a different way of learning.

An increasing number of surf organizations has started providing surf therapy programs in Europe the last decades. Surf therapy is an activity distinct from teaching, technical training, competitive sports, or recreational surfing. Surf therapy activities provide a different context, involving the support of populations with special needs and aiming to promote their integral, occupational, and health development.

There are various ways to conduct surf therapy, all valid when backed by experience and the application of different technical methodologies and organizational criteria for their teams. Several projects are well-established, such as SurfArt (Lisbon) in Portugal, SoloSurf (Cádiz), Mes que Surf (Barcelona), Disfrutar el Mar (Santander), and Kind Surf (Basque Country-Valencia), all in Spain. These organizations are among the examples of successful surf therapy initiatives in Europe. These organizations serve as benchmarks for the types of surf activities that can be conducted through surf therapy. They have inspired many surf schools and clubs to adopt this therapeutic approach to surfing.

Indeed, not only specialized adaptive surf organizations, but also surf schools and surf clubs are delivering adapted surf initiatives with therapeutical purposes. It is the case both in countries with a long tradition in surfing, such as Spain, Portugal and France, but also in countries in which the practice of surf and the establishment of surf schools and surf organizations is relatively new, such as Italy and the Netherlands.

This aspiration does not find any specific framework that establishes the principles for the safe and sustainable implementation of therapeutical surf initiatives. Indeed, from an analysis of the state of the art and from the needs expressed by partners organizations, the Consortium verified how there is a lack of an overall European framework for occupational safety and of organizational guidelines that can be applied by both surf schools and surf therapy initiatives when implementing surf initiatives with neurodiverse children and young people. Occupational safety in surf therapy is fundamental not only to ensure the safety of workers and participants, but also to ensure a positive outcome on the development of neurodiverse participants. Indeed, if poorly implemented, the surf activities might result in a disabling environment for neurodiverse participants.

As inclusive surf therapeutical initiatives targeting neurodiverse children and young people are wide spreading, not only among specialized surf therapy organizations but also among surf schools and surf clubs, there is an emerging need to create an overall prevention culture and to provide a framework for the occupational safety of such activities which will guide their

sustainability in the long term. As it is said, “security does not happen by accident”, and the mission of the SurFedAUT project is to build such a safety framework.

1.2 What is the ESFA?

Considering these premises, the SurFedAUT project aims at increasing the sustainability and safety of surf therapy programs in support of the development of neurodiverse children and young people by creating a European Safety Framework for inclusive and healthy surf environments for AUTism (ESFA).

The framework will guide organizations and sport workers in the increase of occupational safety of surf activities with young people on the autism spectrum that are sustainable over time. These activities can follow any existing specific methodology, and being these programs occasional or continuous, individual or in group, they will all be characterized by validated safety and risk reduction standards. The framework will enable not only organizations working specifically with surf therapy, but also surf schools and surf clubs in the delivery of safe and effective surf therapy services targeting neurodiverse children and young people thanks to protocols for risk reduction and to specific training.

The project will promote a European risk prevention culture for surf therapy including risks that include both occupational and environmental aspects. The European risk reduction framework is not only innovative, as no approach to risk reduction has been proposed yet. It also represents the European added value of the project, as it will be developed thanks to the contribution of best practices from a variety of countries, and, at the same time, it will represent a quality standard for all European organizations providing therapeutical surf initiatives for autism.

Here we present the overall Theoretical Framework behind the ESFA, based on the experience and already established connection of the partner SoloSurf with an occupational safety company, Quirón Prevención.

Therefore, it is important to understand that the ESFA is the first proposal that considers the safety of workers in the surfing sector to work with people with autism, understanding that many experiences with different degrees of autism are already carried out without this protection, and therefore all these instructors are exposed to psychosocial risk situations and consequently to all their effects.

The ESFA can be useful for conducting various surf activities for children and young people with grade 1 autism, aged between 8 and 17 years old.

The purpose of the ESFA is to provide a comprehensive guide to ensure the occupational safety of workers in the surf sector. It focuses on surf activities designed for people with autism, particularly those aged 8 years and older with Level 1 or mild autism. This manual aims to address the general occupational risks, origin risks, and psychosocial risk factors associated with surf therapy activities for people with autism.

The European Safety Framework for inclusive and healthy surfing for autism builds on the following pillars:

1. Adaptability of methodologies for neurodiversity: the methodologies for the involvement of neurodiverse people must be adapted to the specific functional and health profile of the participant. Various tools can be used to evaluate the profile of the participant in terms of cognitive, motorial and social skills (CARS, sensorial profile), and each profile can be associated to specific needs for adaptation of the cognitive and motorial processes of the surf therapy.

2. Organizational structure of surf therapy programs: the provision of surf therapy services needs to be well organized in terms of professional figures required and coordination among all actors involved. Organizational charts that are used in other field could be adapted to map the competencies needed and the connection among different figures.

3. Occupational safety in therapeutical surfing: a risk prevention plan and safety protocols should guide the operations of any surf organization willing to provide adapted surf initiatives. All the workers and actors involved in the realization of the therapeutic surf work (therapists, surf instructors, parents, volunteers) must be trained on risk prevention, as it is the case in other fields of occupational safety.

4. Environmental health of the oceans and coastal ecosystems where the surf therapy takes place. This aspect is normally given for granted, but public health is strictly connected to the health of blue ecosystems, as scientifically recognized by the One Health approach recognized by FAO and WHO, amongst other international bodies. It is important to increase the awareness about this underlying condition that not only enables surf therapy, not only enables surf in general, but determines many other aspects of public health. Risks can also come from the ocean, not only in terms of weather conditions, but also as the result of human activities on the marine environment, as it is the case for chemical pollution, plastic use, increased water temperatures.

By implementing specific occupational protection measures outlined in this manual, we aim to offer a level of protection for surf sector workers in Europe that has not been previously considered. The manual highlights the importance of preventing work-related stress and other occupational hazards to ensure the safety and well-being of both workers and participants.

The manual provides detailed guidelines and procedures to:

- Identify and assess occupational risks: Including general and origin-specific risks, as well as psychosocial risk factors.
- Implement protective measures: To mitigate identified risks and ensure a safe working environment.
- Provide appropriate training: To equip surf instructors with the knowledge and skills necessary to work safely with people with autism.
- Promote best practices: In surf therapy activities, ensuring the safety of workers, volunteers, families, and participants with autism.

The ESFA represents the theoretical framework that explains the importance of occupational safety. It analyses the risks and the mitigation measures for surf workers dealing with young children with autism, from the perspective of an external occupational safety company that ensures the compliance of national and european occupational safety standards.

The ESFA is then condensed in a practical manual, the Manual of Good Practices for Occupational Safety in Surf Therapy and Surf Activities for Autism (Deliverable 3.1). The Manual of Good Practices.

The ESFA, and the Manual of Best Practices for occupational safety in surf therapy and surf activities with young people with ASD Level 1 (hereinafter, Manual of Best Practices), serve as a critical resource for surf schools and clubs, emphasizing the importance of occupational safety and proper training in risk prevention to enhance the overall quality and safety of surf therapy programs.

1.3 An introduction to the ESFA

The SurFedAUT project involves facilitating the professional training of individuals in the surfing sector so they can work with people with autism through surf therapy and surfing activities that are designed to promote the overall development of the client and achieve scientifically proven benefits from this practice.

To achieve this, there is the need for an underlying collaboration with an Occupational Risk Prevention (PRL) company that can identify risks, determine the risk factors that determine them, and specify the protection measures that the worker must apply to be protected at work, thus being able to perform their job safely.

A worker in the surfing sector who has an employment contract and is covered by an occupational accident mutual insurance to cover health consequences in case of an accident would be in legal occupational safety conditions, knowing whether or not there was negligence in the event of an incident due to the failure to comply with these measures.

Therefore, we must understand that occupational risks refer to all situations or conditions in the work environment that have the potential to cause harm, illness, or injury to workers. These risks can be of various natures, including physical, chemical, biological, ergonomic, and psychosocial, among others.

Risks are evaluated at the source (those risks that determine the greatest exposure to harm for the worker) and a training plan is established for surf workers and surf schools in order to avoid these risks.

When working with people with autism through surfing or any other type of work, psychosocial occupational risks are a problem to consider due to their particular nature of exposure, as they affect the health and well-being of workers in their work environment. These risks are related to psychological and social factors that can cause stress, anxiety, depression, and other mental disorders. Some causes of these risks include:

- Work-related stress: Constant pressure and work overload can contribute to work-related stress.
- Lack of social support: The absence of a supportive environment among colleagues or superiors can negatively affect mental health.
- Excessive workload: Having too many responsibilities and tasks can increase psychosocial risk.
- Lack of control over work: Lack of autonomy in decision-making can be detrimental.
- Lack of recognition and reward: Lack of appreciation, etc.

All these aspects can cause physical and mental illness for surf workers, making it very important for companies to take measures to prevent and control these risks, such as implementing prevention policies, promoting a healthy work environment, and training employees.

Preparing workers to work with people with Autism Spectrum Disorder (ASD) is a challenge because many psychosocial factors are very difficult to manage given the need to work with individuals who pose great complexities in establishing relationships that facilitate the work's objectives. Persistent deficits in social interaction and communication, relational and emotional problems that often generate behavioral conflicts, as well as difficulties adapting to the physical and social environment, make the preparation of workers from their perspective of psychosocial PRL training a real challenge.

Good organization and training at work protect us from the stress of dealing with people who have these conditions of functioning and establishing relationships. However, it is this same organization that we develop during work (how we prepare, move, interact, communicate, etc.) that will determine whether people with autism are exposed to a more or less functional context from their perspective of thinking, their way of sensory adaptation, and their nature of understanding what workers intend to do with them.

This "kind" feedback environment between the way of working and the understanding of the person with autism will facilitate the creation of a pleasant sensory environment through our organized way of being (generated by appropriate relationships and functional sensory factors of auditory, kinesthetic, and visual types, which are added to the adapted sensory environment for the occasion and the nature of the type of cognitive and physical activity we want them to perform through quality adapted educational manuals).

It is not surprising to understand why very few professions have PRL training plans for their workers to work safely with people with autism from the prevention of psychosocial factors and at the source. The absence of this training for so many professionals in the surfing sector and other sectors unrelated to the health, occupational, and educational sectors (inherent in the lives of people with ASD) determines the low quality of inclusion processes and the problems many professionals face due to health problems generated by psychosocial risks.

It is very important, when working with people with ASD in any professional activity sector from a psychosocial perspective, to:

- Evaluate risks: Conduct a thorough evaluation of psychosocial risks in the work environment. Identify stressful situations and factors that may affect workers' mental health.
- Clear communication and organization in activities: Establish effective communication and clear organization of tasks and job positions. This can help reduce uncertainty and stress.
- Control of workload: Avoid work overload and facilitate work-life balance. Workers in some positions often face high-pressure situations, so it is essential to manage the workload properly to cope adequately with new exposures.
- Action protocols: Establish clear protocols to address natural work situations. Knowing how to act in case of facing difficult situations due to unforeseen incidents.
- Support and training: Provide specific training on handling patients with ASD in emergencies. Additionally, offer support mechanisms such as psychological counseling or support groups among professionals.
- Conflict prevention: Promote a collaborative and respectful work environment. Preventing conflicts and promoting healthy interpersonal relationships are essential.
- Time management: Help professionals manage their work time efficiently. Avoid excessively long workdays and ensure adequate rest periods.

There is an increasing specification of this training for workers in different services (medical, security forces, other cases) who are part of the daily lives of these people, but many other occupational activities, including activities carried out by professionals through tourism, sports, and leisure, among others, do not have these important labor training for their professionals in working with people with autism.

There are initiatives that propose PRL training for people with ASD when they are the ones performing a profession (Guide for the integration and improvement of preventive management in job positions occupied by people with Autism Spectrum Disorder (ASD)), so the sense of

training people to perform their work safely is expanding in relation to work when it is done by or for the person with ASD.

Therefore, we highlight how the ESFA represents the first proposal that considers the safety of workers in the surfing sector to work with people with autism, understanding that many experiences with different degrees of autism are already carried out without this protection, and therefore all these instructors are exposed to psychosocial risk situations and consequently to all their effects.

1.5 Considerations on the interpretation of the ESFA

It is not a Technical Manual

The objective of the project, through the proposed labor manual, is not to evaluate the performance of technical competencies related to teaching methodologies and safety in surfing instruction developed by schools through their instructors, nor to evaluate adaptability methodologies aimed at the educational treatment of autism developed by specialists, nor the specific technical methodologies used in existing therapeutic surfing projects, also applied by their specialists.

The focus is on evaluating the organizational capacity within work teams, as this enables the creation of synergies that facilitate access, stay, and mobility for people to occupy different spaces where technical methodologies (which are not evaluated in terms of use and types) can then be applied.

It is not a Safety Manual for People with Autism Engaging in Surf Therapy

The manual does not evaluate procedures for prevention and response in medical emergencies, first aid, water rescue, and lifesaving for people with autism who participate in surf therapy activities, nor does it evaluate the competencies and profiles of the personnel applying these procedures in a healthcare context.

The Manual of Best Practices evaluates the organizational labor structure that allows for these interventions to be carried out preventively and, if necessary, through specific actions. It provides a resource for organizational labor management that mitigates psychosocial risks by implementing work organization procedures that favor the prevention, intervention, and monitoring of risks at their source, in accordance with the updated protocols in Europe. These are certified by advisors from the SOLOSURF safety and training team of specialist therapists and support teams working on therapeutic surfing programs.

Not a Course in Occupational Risk Prevention

The ESFA is a resource that integrates all the basic concepts allowing its adaptation to specific content for the prevention of general, inherent, and psychosocial risks that arise in surf therapy activities due to the lack of training from occupational risk prevention companies and the lack of labor organization.

The ESFA serves as a solid foundation for interpretation, allowing for adaptations according to the specific regulations and criteria governing occupational safety in each country. This is particularly relevant to the training measures related to identifying general occupational risks in the workplace, taking into account the natural and cultural context of each country.

Chapter 6 of this manual specifies these aspects, focusing on their application in Spain by Quirón Prevención concerning the evaluation of the presented manual.

The labor organization proposed in the ESFA is the specific organizational model that ensures occupational safety for ISTC and IST through its guidelines and protocols, ensuring the prevention of psychosocial risks due to lack of organization.

Similarly, the specific identification of risks, risk factors, and applied preventive measures are not detailed in their practical dimension, as the manual does not propose the SOLOSURF labor methodology, which is specifically subject to the nature of our context. Instead, it provides an adaptation, referencing these aspects in a generalized manner in Chapter 6 as a complement to

everything outlined in the previous chapters, with its organizational model being the sole resource that ensures the prevention of psychosocial risk factors.

Specialized Therapeutic Surfing Companies, Schools, and Clubs Participating are Not the Evaluation Target

The objective of the SurfFedAUT Project is not to compare, evaluate, and analyze the companies participating in the project, where their partners perform their professional duties. It is not interested in evaluating their technical, labor, or safety methodologies, nor the use and disposition of their resources. These companies, clubs, and centers are independent legal entities that conduct their activities independently, subject to the regulations established in the countries where they operate, with full professional ethics, and legal, health, and labor compliance. Their operations should not be interfered with, nor their privacy compromised.

Chapter 2. Fundamentals Of Occupational Safety

2.1 Innovative aspects of the ESFA

The project aims to develop an innovative framework focused on the safety of workers in the surf sector, facilitating their work through surf activities for people with autism, specifically for those aged 8 years and older with Level 1 or mild autism.

After analyzing the general occupational risk factors, origin risks, and some of the psychosocial risk factors that contribute to their insecurity in surf therapy activities conducted with people with autism, certain occupational protection measures have been implemented in this manual. These measures offer protection to surf sector workers in Europe that no one had considered until now.

Working through surf, ensuring the occupational safety of the worker with these special populations, involves preventing the accident statistics caused by work-related stress, as referenced by labor mutual funds. It also protects volunteers who will be adequately advised and, most importantly, families and people with childhood autism and Levels 2-3 autism who are often exposed to risky situations due to their surf instructors not being trained according to occupational risk prevention standards.

It's crucial to consider that a person with autism functions cognitively (mental processing curve), affectively (emotion-attachment-self-regulation system of relationships), and kinesthetically (using and representing the body for planning, executing, and developing complex movements) differently. It is a mistake to apply standard safe learning guidelines through usual teaching techniques in surf schools.

This situation creates severe issues in cognitive dissonance and relational system deregulation between people with autism and instructors during surf classes, affecting the worker's own occupational safety (general and origin-related occupational risks).

The objective of this project is to initiate a change in this regard, raising awareness of surf therapy as an activity designed for the integral development of people with disabilities rather than from a sports teaching perspective. It focuses on occupational safety (being protected from certain risks and avoiding limiting beliefs of surf instructors and promoters regarding their ability to serve any type of client, such as people with autism).

This project seeks to achieve true inclusion of these populations from the worker's safety perspective when exposed to the risk of working with them, by offering resources trained in occupational safety. It also aims to prevent thousands of surf instructors exposed to this psychosocial risk situation from experiencing stress, in some cases very intense, leading to mental illness due to anxiety.

No surf club or school has thought of this. They thought about the activity (therapeutic surfing) and about people with autism, but they did not consider the safety of the worker from their training in occupational risk prevention. This fact is important to highlight

since no professional economic activity is exempt from contractual labor benefits, which includes the obligatory compliance with occupational risk prevention training.

2.2 The importance of the connection with an occupational safety company

Where does an occupational risk management company come in and end up in an adapted surf context? It is always favoring occupational health and with this, that of all people especially those with ASD. With the training of workers in the therapeutic surfing sector, with the identification of occupational risks specifically observed in therapeutic surfing (psychosocial, performance, and environment), and with the evaluation through revisions of the manual that is developed, it guarantees safety from the legal regulations. The Preventive Culture processes (daily, quarterly, and annual review of the therapeutic surfing services offered in all its areas of development and people involved), guarantee not only the adequacy of the work carried out by a promoting center in terms of safety regulations but also offers data to the statistics related to occupational safety and the offer of new jobs, through this work for the administration in terms of health and employment. Besides this, it also offers statistical data for the competent administration in the field of health and autism in particular, related to its offer as a socio-community resource and the quality of therapeutic surfing as a health and inclusion resource for people with ASD, from the inclusive processes involved).

Asociación SoloSurf, in collaboration with QUIRON PREVENCIÓN, offers specialized occupational risk training for workers involved in therapeutic surfing. This makes SoloSurf the only promoter of this activity in Europe with such training. The training is a crucial component for delivering high-quality surf therapy services. It comprises a technical manual with proprietary methodologies for working with people with autism through surfing, a general safety manual, and a best practices manual for surf therapy.

This training plan covers general and origin-specific risks, as well as the prevention of psychosocial factors and work-related stress. It aims to establish an organized work model where teams know how to prepare and conduct sessions, implement technical methodologies, and follow safety plans. This model is functional and can be evaluated daily, providing data on low accident rates and creating systems that ensure client interest and positive participation evaluations. Consistent application of these practices demonstrates the scientifically proven benefits of surf therapy.

The SoloSurf occupational manual (organization and prevention of occupational risks in surf therapy) enabled SoloSurf to be the only surf therapy activity operating during the COVID-19 pandemic in Spain. It was officially recognized as a leader in occupational risk prevention for COVID-19 in Andalusia by the INSTITUTO DE PREVENCIÓN DE RIESGOS LABORALES, JUNTA DE ANDALUCÍA.

With no other similar models in Europe, the SoloSurf model serves as the sole source of inspiration. Its effectiveness is evidenced by the low accident rates reported by its occupational health mutual over the past 10 years, even in this complex sector of sports-based services for special populations.

The management model and technical methodology of SoloSurf differ from the usual and expected teaching models in the surf sector. It is essential to recognize that therapeutic surfing is unique in all its parameters and should be understood as such, distinct from traditional teaching models.

2.3 Occupational safety for workers in surf therapy

Surf therapy is referred to as a surf activity distinct from teaching, technical training, or sports competition, or recreational surfing. Surf therapy activities involve a different context, supporting populations with special needs and focusing on promoting the integral development, occupational growth, and health of these individuals.

There are various ways to develop surf therapy, all valid when validated by experience, through the application of different technical methodologies and organizational criteria of their work teams. Different projects are successfully operating: SurfArt (Lisbon, Portugal), SoloSurf (Cádiz), Mes que Surf (Barcelona), Disfrutar el Mar (Santander), and Kind Surf (Basque Country-Valencia) all in Spain, among others, are examples that work in Europe. These organizations serve as references for surf activities that can be conducted through surf therapy and have inspired many surf schools and clubs to adopt this therapeutic approach to surfing.

Therefore, the labor organization manual is offered as a resource for the prevention of occupational risks (general and specific psychosocial factors) as a model of organized and safe work according to experience and results of very low occupational accident rates. It can be useful for conducting various surf activities for people with grade 1 autism.

2.4 The objective of the project: to build occupational safety for surf therapy

Within the European framework for surf therapy safety, it is considered necessary to implement a safety plan due to the expanding offer of surf therapy activities. These activities are now being offered not only by specialized centers but also by surf schools and clubs across Europe. Therefore, it is essential to have a comprehensive safety guide that must be mandatorily implemented by all, under the oversight of an Occupational Risk Prevention company, such as the one already implemented by Asociación SOLOSURF with Quirón Prevención in Spain, which is the only one in Europe with very positive results.

The objective is to have a Manual of Good Occupational Practices in Surf Therapy that follows ESFA criteria, providing data supported by regulations, practical experience, and occupational risk prevention training (T2.3, according to the Occupational Risk Prevention company QUIRON PREVENCIÓN, Spain). This manual also aims to propose an evaluable organizational model that integrates the operational areas of occupational risk prevention companies.

When discussing occupational risks, we focus on the worker who performs the activity, offering it to clients (people with grade 1 autism, in this case), as a specific surf activity (surf therapy activities). Therefore, when we talk about occupational safety, we refer exclusively to the worker, not the client's safety.

The areas of intervention for occupational risk prevention companies focus on identifying the general risks faced by workers involved in surf therapy activities. These also include psychosocial factors and stress factors directly related to a lack of competencies and training, insufficient organizational capacity, poorly functional or improvised planning procedures, role inadequacies, and the involvement of non-relevant third parties in the workplace. These issues create interference in decision-making and communication frameworks between surf instructors and other professionals on the beach (psychologists, therapists, caregivers, and other accompanying professionals), or even non-professionals often involved in surf therapy activities (family members, volunteers, others). These aspects compromise the mental health of the worker and, consequently, the client's protection.

Therefore, the objectives of the ESFA are oriented towards occupational safety in the following ways:

- Train individuals (company managers, surf instructors, volunteers, and family members of ASD level 1 individuals from 8 years old) by implementing a common organizational model for promoters (Surf Schools and Clubs in Europe), training them for labor activities in Surf for ASD level 1 individuals (therapeutic surf and other types).
- Ensure that the labor organization processes for surf activities are applied and oriented through organic management systems that implement organized work protocols. These protocols integrate assigned competencies into organizational charts through sustainable training and recycling processes for the teams, where the organization's ability to function as such is more important than the leaders themselves.
- Ensure that work teams operate coherently in thought, emotion management, and decision-making to achieve results oriented towards the proper functioning of the client, considering the health profile of the participating ASD level 1 individuals. This way, as we move and interact while working, we create a sustainable knowledge space for people with autism, free from ecological and social sensory excesses, and create safe relational opportunities for everyone.
- Achieve effective care for ASD level 1 individuals through surf activities by ensuring the specific training of professionals in occupational risk prevention according to current regulations in different countries, following the criteria set in the SurFedAUT ASD level 1 ESFA manual of good practices in surf therapy, regarding point T2.3, considering the different regulations of companies in the countries where they will be applied.
- Promote the participation of surf sector professionals (as well as volunteers and other supporters) in the process of promoting personal development and improving the health of ASD level 1 individuals through safe labor practices.
- Facilitate the safe and trained participation of non-professionals (family members, volunteers, and students in company internships) as part of support teams in surf activities for ASD level 1 individuals, through training in the manual, according to their responsibilities.
- Emphasize the differentiation between good organizational capacity and the knowledge and respect of the worker's capabilities and technical and teaching methodologies, without confusing them. Insist on the complementary need for labor training and technical and safety training to create the appropriate context for offering surf activities to people with autism.
- Clearly establish that the competencies for technical training and preparation for participant safety interventions are not the objectives of this manual or project. It is the responsibility of the promoters (surf clubs and schools) to ensure that their workers (surf instructors) have the appropriate training and, for working with special populations, have their own methodologies or complementary training provided by other specialists.

2.5 Occupational Safety and Training vs. Training in Technical Methodologies for Surf Therapy Activities

When discussing occupational safety, we refer to organizational methodologies through work protocols, not technical methodologies. Therefore, it is not within the purview of occupational safety or the control of occupational risk prevention companies to evaluate the different teaching techniques, occupational methods, or those promoting integral development through technical manuals.

Regardless of whether these applicable methodologies are adaptations of practical and safe surfing instruction, typical of the federative domain for surf instructors, or therapeutic or adaptive

surf methodologies created and developed by specialists, they are not the focus of occupational training.

These methodologies, through the application of their technical manuals, are indeed fundamental for the performance of the worker's competencies, facilitating the functionality, motivation, and safety of the client. Thus, while they are not the objective of evaluation by external occupational risk prevention companies, nor the objective of analysis or evaluation in this project and manual, the promoters (surf schools and clubs) must ensure that their surf therapy instructors are knowledgeable about and apply them, being technically trained and advised by specialists in the treatment of grade 1 autism. This ensures the prevention of general and inherent occupational risk factors (working with people with grade 1 autism through surf activities).

2.6 A Guide as a Model for Organizational Adaptation by External Occupational Risk Prevention Companies

The ESFA aims to provide a resource that serves as a model or guide for professionals in the surfing field, specifically for activities involving individuals with grade 1 autism. Additionally, it serves as a reference for Occupational Risk Prevention companies across Europe to understand the current practices implemented by Quirón Prevención in Spain. This includes the prevention of occupational risk factors, identifying general risks, inherent risks, and psychosocial and work-related stress risks. The proposed manual is a valuable resource for implementing preventive measures for all these identified risks, particularly for addressing some of the most significant psychosocial factors affecting surf workers engaged in these activities.

Therefore, the goal is not to replicate the SoloSurf-Quirón Prevención labor manual but to consider the proposed organizational structure in this project as a labor manual. This guide has been evaluated as highly functional by the occupational risk prevention company Quirón Prevención, based on its excellent results according to mutual assessments.

We offer the opportunity for occupational risk prevention companies across Europe to consider adaptations that allow for the interpretation of general occupational risk identification in surfing activities for individuals with grade 1 autism, applying them to their cultural, health, legal, and labor contexts.

Given that the term Surf Therapy is an innovative activity model focused on integral development and distinct from other surfing objectives, it may cause confusion in certain contexts and countries regarding the value of "clinical treatment of individuals with autism through surfing," assuming this value under the concept of "therapy."

This potential misinterpretation could hinder the expansion of the SurFedAUT project, as therapeutic surfing activities do not align with clinical therapeutic and prescriptive, facultative rehabilitative treatment objectives for these individuals. We must find ways to communicate that the project, through its manual, aims to train those performing these activities in occupational safety, recognizing them as a globally accepted reality with scientific evidence, and thus supporting their development as non-clinical but therapeutically beneficial activities.

The project does not intend to situate the therapeutic benefit within traditional clinical contexts of different European countries (whether or not they normalize the concept of surf therapy as an applied activity), nor does it question the validity of existing technical methods in Europe (which are evidently supported by the excellent results of surf therapy specialists over the past 15+ years in many cases).

The objective is to offer European external Occupational Risk Prevention companies the opportunity to adapt occupational risk prevention training for workers in the surfing sector. The aim is to establish a common and adaptable protocol for both operational and organizational labor training across Europe, tailored to each cultural, natural, and legal context, in accordance with European and national occupational safety regulations.

Chapter 3. Functional Profiles of participants with Autism

3.1 Functional Profiles of the Clients/Participants With Autism in Surf Therapy Activities

Limits in the profile of the client-participant with autism consuming surf therapy activities considered under the ESFA:

- Children up to 8 years old with Autism Spectrum Disorder, with a positive result in systematic screening tests, or with a probable or confirmed diagnosis of ASD, according to diagnostic criteria for Autism Spectrum Disorders of DSM-5 and Generalized Developmental Disorders of ICD-11)
- Population from 8 years old, adolescents, and adults with a confirmed diagnosis of ASD Grades 2-3, or Moderate and Severe Autism, according to diagnostic criteria for Autism Spectrum Disorders of DSM-5 and Generalized Developmental Disorders of ICD-11

These limits are considered due to:

- The particular circumstances of attention, care, accompaniment, and therapeutic, clinical, and occupational therapy stimulation required by these individuals
- The risks to which they may be subjected due to lack of qualification, as well as to interaction processes that affect their prognosis.
- The multiple variables and factors that can affect the therapeutic surf process for infant populations of early attention age or for people with Grades 2-3 regarding specified areas that are severely affected by associated factors of behavioral disorders, psychic disability, ADHD among others.
- The difficulties in dealing with the socio-sanitary and educational workforce, according to the sources provided by the National Institute of Safety and Health at Work (INSST), which may affect their mental health in the performance of jobs for populations of students, patients, and clients with special educational needs
- Consideration of ESFA's specific objectives for the promotion of safe, sustainable, and functional programs for people with ASD.

3.2 Clients Bias for the Minimization of Risks at the Source

According to the general risks associated with the natural environment and the sport of surfing, considering Surf Therapy activities for people with Autism, based on point 1 of art. 15 of the LPRL and the principles of preventive action, the employer (promoter of a surf school or club conducting these activities) shall apply measures that integrate the general duty of prevention provided for in art. 14 of the LPRL, in accordance with the following general principles: Avoid risks

1. Evaluate risks that cannot be avoided
2. Combat risks at their source
3. Adapt work to the individual, particularly with regard to the design of workstations, as well as the choice of equipment and work and production methods, with a view, in particular, to reducing monotonous and repetitive work and mitigating its effects on health.
4. Take into account the evolution of technology.
5. Replace what is dangerous with what is not or less dangerous.

6. Plan prevention, seeking a coherent whole that integrates technique, work organization, working conditions, social relationships, and the influence of environmental factors on work.
7. Adopt measures that give priority to collective protection over individual protection.
8. Provide workers with appropriate instructions.

Specifically, in order to combat risks at their source, reducing the probability of certain risks materializing, specifically of a psychosocial nature, the therapeutic activity of surfing will be aimed at children and young people between 8 and 17 years old with autism spectrum disorder (ASD) grade 1. Likewise, in accordance with point 2 of art. 15 of the Occupational Risk Prevention Law: "The employer (promoter of a surf school-club conducting surf activities for people with autism) shall take into consideration the professional skills of workers in safety and health matters when assigning them tasks." Limiting the autism spectrum to level 1 (Mild Autism) takes this point into consideration, reducing the training needs of workers (surf instructors) to safely carry out therapeutic surfing activities. Users with ASD G1 need moderate help to interact appropriately in social situations, detect and interpret nonverbal cues correctly, and acquire new skills and knowledge that are not within their immediate areas of interest, according to the Manual of Mental Disorders (DSM-5).

3.3 The clients profile

Population from 8 years old, adolescents, up to 17 years old, with a confirmed diagnosis of Autism Spectrum Disorder (ASD) Level 1 or Mild Autism according to the diagnostic criteria for Autism Spectrum Disorders in DSM-5 and Generalized Developmental Disorders in ICD-11), as well as their accompanying family members and guardians.

Observations: We consider in the manual of good practices in surf therapy SURFEDAUT ASD Level 1 (ESFA) that people with this level of autism are characterized by significant difficulties in social interaction and communication. However, unlike other levels and early ages, these individuals can lead a relatively independent and normal life. It is considered that more than 60% of people with ASD are Level 1, although, in general, they present the following symptoms:

- Development of language and cognitive functions.
- Difficulty in social interactions; thus, needing help with verbal communication.
- Difficulty in alternating tasks.
- Excellent memory capacity.
- Obsessive ideas or fixed ideas.
- Difficulties in developing empathy.
- Hypersensitivity to some stimuli.
- Difficulties in understanding or performing some gestures and facial expressions.
- Tendency to repeat words without any meaning.
- Difficulty in maintaining a normal conversation, through active listening times and presence in reciprocal interaction.
- Present repetitive, unusual, and stereotyped body movements, as well as having difficulty in performing sports learning.
- They may present symptoms of ADHD, among others.

For all these reasons, some of the intrinsic aspects in the practical concept of the surf therapy session through the manual must be considered for people with ASD Level 1:

- Plan the session in advance, identifying activities, using structuring techniques for work areas.
- Establish "stable, repetitive, and functional routines" as part of the planned session, avoiding corrective procedures with insignificant, abstract discourses, avoiding correction in the work process.
- Frequently use visual and audiovisual resources, complementing them with simplified and meaningful verbal compensations in specific guidelines related to the tasks to be performed or in progress.
- Structure and organize the work environment and its resources as a natural means ensuring all its parameters and avoiding stress due to excess involvement, situations of helplessness due to lack of capacity at the present moment, and avoiding continuous modifications and exposures to multiple stimuli, especially auditory.
- Use some strategy to inform the person with ASD Level 1 about times and spaces through visual markers, gestural signals, times of intermediate and utilitarian actions, implementing them within the temporal structure of the surf therapy session itself.
- Facilitate social interaction, socialization processes with their peers in a functional way (simple participation in the contents allows the achievement of this objective increasing their results over time of exposure) and with the professionals themselves, promoting the development of communication through complementary visual systems that establish a logic of visual thinking and emotional regulation-communication during the surf therapy session.
- Encourage personalized and autonomous work, whenever possible, allowing the establishment of a support network during the surf therapy session with the team (surf therapy instructors and other staff) that favors participation and the generalization of their relational capacities over time, avoiding at all times the isolation of the person with ASD Level 1 during the session time.
- Promote group work, cooperating in the shared development of group contents, training, and co-responsibility functions, should implement times of solitary work at some moments of the session, in order not to overload with excessive environmental demands (physical, sensory, social) as well as to redirect cognitive, affective, and specific sports processes of the person).

The person with ASD Level 1 will participate, therefore, in the therapeutic surf process designed in the Manual of Good Practices in SURFEDAUT (ESFA), through an accompanying procedure that involves individual adaptations, participating in a personalized manner and preferably in small groups, through the performance of practical, structured activities that allow the instructor adequate supervision of their integral learning (psychosocial, sports-occupational-recreational-environmental), as well as the explicit application of their occupation as an instructor through functional learning styles, such as directive training through guided discovery, repetition without corrections, meaningful and experiential active learning, allowing trial and error, through active listening to others, following basic rules through content structuring.

3.4 Expansion of the SurFedAUT Project: Comprehensive Care for People with Autism

It is therefore a reason to allocate time and future energy to continue with new revisions of the current labor manual model under development (ASD Level 1), increasing through new relevant figures, creating synergies with occupational therapy centers and childhood care centers, already having a resource such as schools trained in therapeutic surfing SURFEDAUT (ESFA) for people with ASD Level 1; expanding the possibilities of therapeutic surfing as a discipline and resource.

Chapter 4: The Providers Of Surf Activities under the ESFA

4.1 Relevant Figures

Promoters: Surf Schools and Clubs

Trained through the Manual of Good Practices in Surf Therapy SurFedAUT ASD Level 1 ESFA, in the development of surf activities for individuals with ASD Level 1 (surf therapy, adapted, among others). The promoters need to ensure the training of their workers when offering ST programs.

Employees / Workers

Surf Instructors-Coaches-Trainers (ENS12, ISA 1-2, other cases of training recognized in Europe). CADYF / INEF (Considered as values that complement training such as CAFYD / INEF, Bachelor's degree in Psychology, Teaching, TAFAD (Technician in Animation of Physical and Sports Activities), Lifeguarding and First Aid)

Non-professional collaborators:

Volunteers and support staff for surf activities for individuals with ASD Level 1 who follow the training processes and competencies established in the proposed manual

4.2 Product Offered by the promoters to the clients, from an occupational Safety perspective

Surf Therapy as surf activities for individuals with Autism Level 1 from 8 years old

The European Safety Framework in Surf Therapy for Autism guides as a product the development of surf activities specifically designed for individuals with Autism Level 1, which can be identified as surf therapy activities, adapted surfing, surfing for all, as well as other surf activities specifically designed for these individuals and inclusive ones that aim to:

The participation of individuals with Autism Level 1 from 8 years old, to be carried out through their accompaniment by professionally trained surf sector personnel following occupational risk prevention criteria and technically trained through complementary non-occupational training, belonging to schools and promoting centers that hire them for such purposes

The integral development and health of the individual with Autism Level 1, through their participation, as well as all the benefits that surf therapy activities and their environments generate, supported by scientific evidence, through verified studies

The improvement, expansion, and personal and specific development of the activity through the acquired learnings

4.3 Competencies required by the promoters

Concepts for Professional Training (Surf Therapy Instructor Coordinator - ISTC and Surf Therapy Instructor - IST)

They must know and have training in the SurFedAUT ESFA Manual, and follow a specific training process in Occupational Risk Prevention (PRL) by an external company (general risks + psychosocial prevention with knowledge and training in the good practices manual for surf therapy SurFedAUT), following the proposal identified in general in the manual of good practices.

Training as accredited surf instructors is needed, including a labor contract and accident insurance, as well as additional training for working with people with level 1 autism, in the form of externalized training or of demonstrated experience in working with surf therapy organizations.

For externalized training, we refer to proven background on special education or similar fields that ensure the capabilities in working with the target group of autistic children, and complemented with the training provided by the surf school that promotes the ST activity. Training resources from ISTO or other surf therapy organizations could be examples of those trainings. The process of selection and validation of the credentials of the ISCT needs to be overseen by the promoter (surf school-club).

Concepts for Volunteer Training

All individuals participating in surf activities must undergo an organizational training process, following the competencies outlined in the SurFedAUT Surf Activities Manual related to Work Session Protocols. To this end, the promoters facilitate these processes through theory and simulations that ensure the identification of anticipated risks.

Additionally, it is assessed that the volunteer has health conditions compatible with the activity they will perform and meets safety requirements through activity insurance (volunteer contracts) and possession of a certificate of absence of sexual offenses issued by the police. In the case of minors, authorization from guardians is required.

Chapter 5: the ESFA

5.1 The ESFA as a Prevention Resource

In order to encompass aspects of work that may affect the health of workers under a single concept, the term working conditions was coined. According to this term, working conditions would encompass three areas, differentiating the work environment, task demands, and work organization.

The latter refers to the way in which work is fragmented into elementary tasks, as well as the distribution among different individuals, together with the execution speed, authority and hierarchy structures, established relationships, etc.

The concept of working conditions will encompass all those variables that define the performance of a specific task and the environment in which it is carried out. Each of these variables, which are capable of causing harm to the health (physical and mental) of workers (surf instructors for working with individuals with autism, in the case of the manual), are called risk factors.

It is essential to understand the nature of psychosocial risks, as one of the risk factors that, like other more explicit risks related to general risks, require the application of specific protection measures.

These must be applied in the exercise of surf therapy activities carried out with individuals with autism level 1.

Therefore, external occupational risk prevention companies identify general risks and attend to all the necessary work training that, in the organization of the work to be carried out, allows, among other aspects, to plan prevention, seeking a coherent set that integrates technique, work organization, working conditions, social relationships, and the influence of environmental factors on work.

Work Psychosociology, from the perspective of occupational risk prevention, is a discipline that addresses psychosocial or organizational work conditions, also called psychosocial factors. These work conditions, when they are bad, deficient, and/or adverse, either due to inadequate design or due to development or implementation in the organization, interact with workers' expectations, needs, capacities, and/or attitudes, negatively impacting their safety, health, and well-being, thus becoming a source of risk that needs to be managed.

The importance of good organization in work based on the framework of healthy relationships, the establishment of functional roles, and other factors related to good and effective organizational capacity that facilitate the growth and health of the work group as a whole, are factors considered in the prevention of psychosocial occupational risks that, from the worker's protection perspective in the case of the SURFEDAUT Project regarding their work training as a surf therapy instructor coordinator ISTC, will always facilitate the protection of the client with autism for whom they carry out their professional activity, through surf therapy activities from their good practice focused on occupational safety.

The so-called European Framework for Psychosocial Risk Management (PRIMA EF), proposed by a consortium in which various European institutes participate in addition to the ILO and the WHO, establishes the importance of paying attention to these factors. The objective is the elimination of the risk that originates from these bad working conditions or, when elimination is not possible, its reduction to tolerable limits, through the evaluation, intervention, and control of existing psychosocial risk factors, derived from bad planning, role ambiguity, inadequate leadership styles, mistreatment or violence at work, inequality in responsibilities, or other types related to bad work practice.

The employer (promoter of a surf school-club that carries out surf therapy activities) must, therefore, adequately design jobs from a psychosocial point of view and ensure, with the tools of safety and health management, that this design allows protecting the psychosocial safety and health of workers. The way to carry this out is through an identification and evaluation of psychosocial risks that is adequate and effective, as set out in the preventive regulation (Art 15 1. LPRL).

In point T2.3 of the manual, this psychosocial risk is addressed, as well as the different factors that determine it and must be controlled through protection measures from the perspective of occupational risk prevention in surf therapy, being the ESFA and from the point of view of the occupational risk prevention company Quirón Prevención a resource and tool for the protection of psychosocial risk in surf therapy activities and that:

"It is based on the SOLO SURF work methodology, which is a tool that surf schools have to minimize certain psychosocial risks derived from working with users with special needs Autism Level 1."

"It is part of the psychosocial intervention and is included in the ESFA, establishing work plans, action protocols, information collection sheets, etc."

5.2 What does the ESFA include

The ESFA is then condensed into a Manual of Best Practices for Occupational Safety, targeting surf schools providing surf activities with young people older than 8 years old with ASD G1 (Deliverable 3.1). The Manual is endorsed by the external company in occupational risk prevention as fundamental in the prevention of general risks at the source in the position, the implementation of protection measures for the general risks identified by the external company, as well as for the control of certain fundamental psychosocial risks due to lack of planning, foresight, and evaluation in the work. The Manual of Best Practices for Occupational Safety counts with 2 components:

Component 1: Labor Accompaniment Protocol in Surf Activities SurFedAUT with young people with autism level 1.

This protocol is inspired by the usual clinical psychopedagogical intervention plans of the educational model for populations with special educational needs. It establishes a criterion for labor organization that allows, through a careful step-by-step attention process, the promoter and the ISTCs to carry out their work following the adaptability criteria for functional diversity and prevention for disability and health risks of the clients to whom, ultimately, they are trying to act. It is about adjusting:

1. Initial Information Plan
2. Profile adaptation plan for client-participant functioning and health
3. Preparation Plan for Tutor and Client-Participant
4. Work plan for the surf therapy coordinator instructor
5. Session 1 Implementation (success and objective achievement)
6. Session 2 Implementation (client reinforcement)
7. Realization of third and subsequent sessions
8. Establishment of the occupational safety process in surf therapy

The objective of the protocol is to facilitate the organization in the accompaniment process from when the client shows interest, coordinating actions and establishing competencies to facilitate their adaptation and participation process, creating a functional and organic circuit that establishes low accident rate data through evaluation processes and issuance of CHECKOUT reports with low accident rate data.

It does not evaluate or propose as an object of evaluation the performance of the techniques and technical tasks that are implemented, with the resources offered as technicians in this manual being specific to the SOLOSURF technical methodology, being a guide that can be adapted.

Component 2: Manual about occupational safety for Surf Activities SurFedAUT with young people with autism level 1.

This labor manual focuses on the training and organization competencies of relevant figures (Promoters, Surf Instructors, and Volunteers) and is inspired by organic work organization models, differentiating 1) labor training, 2) labor organization through organizational charts, and 3) the performance of labor organizational competencies through work protocols; integrating them into an organic process (designed to facilitate client decisions and create environments free of environmental and psychosocial stress for all individuals, from occupational safety, in surf activities for individuals with autism level 1. It represents Deliverable 3.1.

It counts with three main parts:

- Labor Protocol 1 for Training and Recycling of Teams
- Labor Protocol 2 for Organization (Organizational Chart)
- Labor Protocol 3 for Work in surf therapy activity-session for ISTC / IST

5.3 The adoption of the ESFA by the Promoters: facilitating a professional approach based on occupational safety

Promoters, surf schools, and clubs must properly design jobs from a psychosocial perspective and ensure, with the tools of safety and health management, that this design protects the psychosocial safety and health of workers. The way to do this is through an identification and evaluation of psychosocial risks that is adequate and effective, as stated in preventive regulations (Article 15.1 LPRL).

For this, the preventive process must adhere to the following steps:

- Identify the risks present in a specific activity, position, or organizational environment.
- Avoid the identified risks.
- Evaluate the identified unavoidable risks.
- Surf therapy schools will clearly define the competencies of the therapeutic surf coordinator (ISTC) and the therapeutic surf instructor (IST). There will be a clear specification of the functions and responsibilities before, during, and after the completion of the surf therapy sessions (role definition).

The ESFA establishes general competencies for the following roles:

- Therapeutic surf instructor coordinator (ISTC)
- Therapeutic surf instructor (IST)
- Support personnel (non-labor personnel) Volunteers, among other cases

It also establishes competencies within the participant's work plan, forecast plan for the development of the ST session, and the Preparation, Development, and Completion protocols established by the Manual of Good Practices in Surf Therapy SurFedAUT for ASD level 1 users:

- Establishment of supervision ratios during the development of ST sessions that are manageable for ST instructors. The IST Coordinator will establish the supervision ratio during the therapeutic session development based on the forecasted weather and sea conditions, functional abilities of the users, previous experiences, etc. An inadequate ratio could be a stress factor for the IST/IST Coordinator during the ST sessions.
- Surf schools and clubs that carry out therapeutic activities will have protocols for prevention and action against workplace harassment, sexual harassment, and discrimination based on sex or other factors.

Chapter 6. The ESFA and the environmental health

Incorporating considerations about the health of marine ecosystems and the environment in the European Safety Framework for surf activities for autistic children is crucial for several reasons. Firstly, the health of marine ecosystems directly impacts public health, including that of the children participating in surf therapy. The One Health approach recognizes the interconnectedness of human, animal, and environmental health, emphasizing that a healthy environment is essential for overall well-being. Secondly, environmental education for all users of the ESFA, including children, parents, and instructors, can raise awareness about the importance of marine ecosystem health. This awareness can lead to more responsible behaviors, such as reducing plastic use and chemical pollution, which are detrimental to marine ecosystems. Ultimately, integrating environmental considerations and education into the ESFA can contribute to the sustainability of marine environments, ensuring their health and availability for future generations to enjoy surf therapy and other ocean-related activities.

The ESFA will integrate environmental education through a dedicated module developed by WF, focusing on providing surf schools and workers with practical tools for educating children about the importance of marine ecosystem health. This module includes a board game and a storybook specifically designed to raise awareness about human impact on the ocean. With a "train the trainer" approach, participants will not only enhance their own understanding of environmental education but also gain the skills to effectively transmit this knowledge during surf activities with children. The tools will be tailored to accommodate the learning needs of neurodiverse children, ensuring inclusivity and effectiveness in delivering environmental education within the context of surf therapy.

Chapter 7. The validation of an external occupational safety company: Prevention Of Occupational Hazards In Surf Therapies



Chapter 7. PREVENTION OF OCCUPATIONAL HAZARDS IN SURF THERAPIES



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1. Basic Concepts on Safety and Health at Work

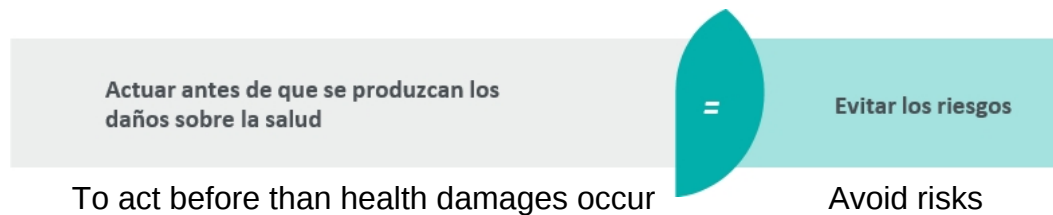
1.1. Introduction

With the LPRL (Law of Prevention of Occupational Risks), we proceed to harmonize Spain's occupational health and safety regulations with the standards developed by the European Union in this area.

Thus, by means of the Law, the Spanish State complies with the Community mandate to incorporate into its domestic legislation a series of Directives relating to the prevention of occupational risks. The Law directly transposes several Community Directives, in particular the 1989 **Framework Directive** and the **Directives** of 1991, 1992 and 1994, **relating to maternity protection, the protection of young people and the treatment of temporary labor relations.**

The Explanatory Memorandum, and in particular paragraph 5, states the fundamental objective of the **LPRL**: the protection of workers' health and safety. To this end, the Law establishes a new approach to the establishment of working conditions:

PREVENTION, which will constitute, as the title of the Law indicates, the fundamental principle:



Ley de Prevención
de Riesgos
Laborales (LPRL)

LPRL

**Desarrollo
Reglamentario**

Otra Normativa

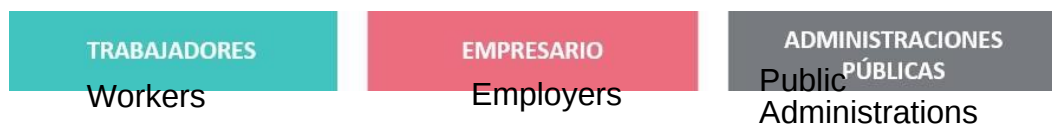
**Convenio
Colectivo**



This Law not only contains a series of very general precepts, but also makes it mandatory for those in power to develop it through specific regulations, including the **Prevention Services Regulations**.

However, despite this general nature, the LPRL is, above all, a law of **rights, obligations and responsibilities**.

However, the application of the Law is a challenge for all those involved in the labor world, not only for **employers. Workers and Public Administrations** must also comply with the set of obligations determined by the Law and must conform their behavior to the new preventive approach proposed by the Law.



This Law involves society as a whole in the development of a true culture of prevention in Spain, in order to achieve progress in a real improvement of working conditions and a significant reduction in occupational accident rates.

Subsequently, **Law 54/2003**, on the Reform of the **Regulatory Framework for the Prevention of Occupational Risks**, was enacted. The aim of this reform is to truly integrate occupational risk prevention throughout the production process and at all hierarchical levels of the company, to promote a true culture of prevention in Spain and to adapt occupational risk prevention regulations to the new forms of work organization, especially to the various forms of subcontracting.



1.2. Health. Professional Contingencies

According to the definition given by the World Health Organization (WHO), health is a state of complete physical, mental and social well-being and not merely the absence of disease. In the definition, it should be noted that the health concept of health is broadened with the approach of universality, i.e., the concept of health should cover three aspects: physical, mental and social.

Damage to health, understood as physical, mental or social imbalances, can be classified into two categories:

- **Common Contingencies:** damage to health occurring outside the work environment.
- **Occupational Contingencies:** damage to health derived from work (illnesses or injuries occurring in the work environment). This section includes cases of Occupational Accidents and Occupational Diseases, which are dealt with in depth in the following sections.

1.2.1. Labor Disability

When a worker is unable to perform his job because he has suffered an injury to his health, caused by a common contingency or an occupational contingency, he is in a situation of **incapacity for work**, and will be entitled to **use the protective action of the Social Security**.

Depending on the duration of the incapacity for work, the worker's situation can be classified as follows:

TEMPORARY	INCAPACITY
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PERMANENT	DISABILITY
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1.2.1.1 TEMPORARY INCAPACITY

Temporary Incapacity represents a situation in which it is foreseeable that the worker will recover his normal state of health in a period of less than 12 months, extendable for another 6 months when it is assumed that in that period of time the worker will be able to be discharged from the hospital due to recovery.

Once the period of time indicated in the preceding paragraph has elapsed, the condition of the disabled person will be examined for the purpose of qualifying him/her as permanently disabled.

1.2.1.2 PERMANENT DISABILITY

In accordance with Article 134 of the Revised Text of the General Social Security Law (R.D. 1/94), permanent disability is understood to mean the situation of a worker who, **after undergoing the prescribed treatment and having been medically discharged, presents serious anatomical or functional reductions that diminish or annul his or her capacity to work.**

The situation of incapacity that **subsists after the** temporary incapacity has ended due to the expiration of the **maximum period of duration (12 months, extendable for another 6 months)** will also be considered as Permanent Incapacity.



 quirónprevención

The Permanent Disability will be classified, according to the **percentage of reduction of the work capacity** of the interested party in the following cases:

- **Partial permanent disability** is that which causes the worker a disability of not less than 33%.
- **Total Permanent Disability for the Habitual Profession**, is the one that disables the worker for the performance of fundamental tasks for his/her profession, provided that he/she can dedicate himself/herself to a different one.
- **Absolute Permanent Disability**, which completely disqualifies the worker for any profession.
- **Major Disability**, in which the worker, as a result of anatomical or functional losses, needs the assistance of another person to perform the most essential acts.



1.2.2 Permanent non-invalidating injuries

These are **injuries, mutilations and deformities of a definitive nature**, which, without constituting a permanent disability, imply a reduction or alteration of the worker's physical integrity. The benefit is a compensation of a fixed amount according to the injury, as stated in **Order TAS 1040/2005 (B.O.E. April 22, 2005)**.

1.2.3 Social Security and Mutual Insurance Companies for Occupational Accidents and Occupational Diseases

The State, through Social Security, guarantees a protective action, which includes:

- Health care.**
- Professional recovery.**
- Economic benefits.**

All companies are obliged to pay social security contributions in order to cover the above actions. In this sense, it is contemplated that companies may opt for Social Security or Social Security management entities to provide them with this service.

The **Mutual Insurance Companies for Occupational Accidents and Occupational Diseases of the Social Security**, are those associations that are constituted, not for profit, with the main purpose of collaborating in the Management of the Social Security (managing entities).

The collaboration provided by the Mutual Insurance Companies for Occupational Accidents and Occupational Diseases in the management of Social Security will include the following activities:

- a. Collaboration in the management of professional contingencies** (occupational accidents and occupational diseases): benefits for temporary disability and permanent disability.
- b. Carrying out recovery activities.**
- c. Carrying out prevention activities, in accordance with the guidelines provided by the Ministry of Labor and Social Affairs.**
- d. Collaboration in the management of the economic benefit** only for temporary disability derived from common contingencies.

1.3. Accidents at Work

All work involves **risks** and those risks can result in two main forms of harm to the person working:



RISK

The possibility that a worker suffers a certain harm derived from work. When assessing a risk, two factors must be taken into account:

- **PROBABILITY:** the possibility of an event occurring.
- **GRAVITY:** the impact it has on the person.

The work accident can be defined from two points of view: a technical definition and a perception from the legal point of view. From both perspectives, the occupational accident must be considered as a **failure**, and its analysis and study is intended to obtain sufficient information to **prevent others**.



1.3.1 Legal Definition EMPLOYEES

FOR EMPLOYMENT

The concept of occupational accident from a legal and regulatory point of view is specified in Article 156 of the Texto Refundido de la Ley General de Seguridad Social (R.D. 8/2015), which defines it as **"any bodily injury that the worker suffers on the occasion of or as a consequence of the work he/she performs as an employee"**.

Some clarifications can be made to the above definition:

- It should be noted that the definition includes the term **"on the occasion of or as a consequence of"** which, with deliberate ambiguity, makes it possible to extend the classification as occupational to those accidents that occur outside the workplace (in itinere) **and to those diseases that, although they can be classified as common (because they are not included in the list of occupational diseases), are related to working conditions.**

This deliberate ambiguity is a manifestation of the legislator's desire to facilitate the extension of protection and attention to the worker to a wide range of situations and circumstances.

- As can be seen, the definition emphasizes the need for **there to be an injury to the worker, regardless of** its severity or consequences.

Sometimes the severity of the injury suffered by a worker or the existence of the injury is largely a fortuitous event, so that some potentially very important accidents such as, for example, an explosion, may cause irreparable material damage and, fortunately, not cause any injury to the workers.

In this case, the accident would not be legally considered an occupational accident, so the term "white accident" or the terms "incident" or "quasi-accident" are usually used.

SELF-EMPLOYED OR FREELANCE WORKERS

The concept of occupational accident from a legal point of view for self-employed workers is set forth in Article 3 of **Royal Decree 1273/2003**, which defines it as **"that which occurs as a direct and immediate consequence of the work performed on their own account and which determines their inclusion in the field of application of the special regime"**.

Therefore, according to this definition, accidents that the worker suffers while going to or returning from the workplace are excluded.

Technical Definition

From a technical point of view, an occupational accident is defined as **"an abnormal, unwanted or undesired event that occurs abruptly and unexpectedly, although normally avoidable, that interrupts the normal continuity of work and may cause injury to persons or damage to property"**.

The following remarks can be made about this definition:

- For the alteration of the process to be considered an accident, in order to avoid its possible presentation, it is necessary that it is not due to the wishes of those involved.
- Being susceptible to produce damage or injury, so that, then, those that have been previously considered as incidents or white accidents would be integrated into this concept.

It should be noted that, depending on the point of view from which it is viewed and, therefore, the definition applied, the same event could be classified as an accident from a legal point of view, but would not receive the same classification from a strictly preventive or technical point of view.

1.3.3. Accident Classification

We must start from the premise that **accidents are always avoidable, and** that fatality is not their cause. It is common to associate that, since it is an unexpected event, it is also inevitable. The cause(s) or origin(s) of accidents are usually easily detectable by analyzing the sequences that have produced them, and they include both **technical and organizational causes**.

Whatever the causes of an accident, they can be classified according to different criteria:

CLASSIFICATION OF ACCIDENTS	
Place of work	• Occurring at the workplace or work center • "In Itinere"
Worker's Employment Status	• With Low • No Discharge
By Severity of Injury	• Slight • Graves • Deadly



An accident is considered to be a sick leave accident when the worker does not go to work the day after the accident has occurred, because he/she is under medical treatment and is temporarily incapacitated.

The criterion for classifying an accident according to the seriousness of the injury is based exclusively on **the medical assessment of the injuries produced**, there being no objective criterion for this purpose.

1.3.4 Cost of Workplace Accidents

A work accident involves physical injuries for the worker who suffers it and implies **pain, loss of work, medical attention to cure them, etc.** In addition, most accidents include, along with physical injuries, the deterioration of materials and equipment involved in the accident.

Therefore, in order to quantify the total cost of an occupational accident, it is necessary to analyze the two components involved:

CLASSIFICATION OF ACCIDENTS	
Economic Cost	• Loss of working hours (injured, co-workers and managers) • Medical assistance • Deterioration of materials and equipment
Human Cost	• Pain, suffering • Disability, death • Loss of experience

Another aspect to consider regarding the cost of accidents is **who should bear** ("pay") the cost of accidents, or in other words, for whom accidents represent a cost. In this respect, in one way or another the cost falls on:

THE ACCIDENT

- **Human Cost:** Physical and psychological suffering from injuries, medical treatment and possible permanent sequelae.
- **Loss of working capacity**
- **Family suffering.**
- **Social Rejection.**

SOCIETY

- **Deterioration in the quality of life of our society.**
- **Economic losses borne by all citizens.**

COMPANY

- **Loss of Human Resources.**
- **Staff problems and inconvenience: prosecutions and convictions.**
- **Insurable economic costs.**
- **Hidden economic costs:** time lost by the injured party's colleagues (rescuing him), time lost by the injured party's managers (attending him), uninsured first aid and medical assistance, damage to machinery, loss of productivity due to the discomfort caused by the accident. Hidden costs are usually four times higher than insurable costs.
- **Costs for civil or criminal lawsuits arising from serious or fatal accidents.**
- **Loss of company image.**

1.4 Occupational Disease

From a legal point of view, Article 157 of the Revised Text of the General Social Security Law (R.D. 8/2015), defines as an occupational disease **"any disease contracted as a result of work performed as an employee, in the activities specified in the table approved by the provisions for the application and development of this Law, and which is caused by the action of elements or substances indicated in said table for each occupational disease"**. The table referred to in this definition is included in Royal Decree 1299/2006, of November 10, 2006, which approves the table of occupational diseases in the Social Security system and establishes criteria for their notification and registration.

With regard to the above definition, it is necessary to make the following clarifications:

- It is a necessary condition that the occupational disease is caused by work and that the disease is legally recognized, i.e. it is caused by a substance or agent that appears on the list of occupational diseases recognized by the Social Security.
- The similarity between occupational accident and occupational disease lies in the final consequence: damage to health.
- The difference between accident and occupational disease lies in the time during which the action causing the damage occurs. In the case of an accident, the damage appears immediately. On the contrary, in the case of occupational disease, there is a slow and progressive deterioration of health, so that the external effects may take a long time to appear.

For example: a worker who has been exposed to significant doses of radiation may manifest an occupational disease when the person has reached retirement.

According to the clarifications made, those diseases caused by exposure to substances or agents not included in the official list of the Social Security are not considered occupational, giving them the classification of occupational diseases. Section "e" of the aforementioned article defines **occupational diseases** as **"diseases not included as occupational diseases, contracted by the worker in the course of his work, provided that it is proven that the disease was caused exclusively by the performance of his work"**.

Occupational diseases are legally considered as occupational accidents. That is to say, when the relationship between the disease and the working conditions is evident, since it is not included in the official list, it is treated administratively as if it were an accident at work, so that the worker does not experience any reduction in the system of protection and protection.

Previous illnesses suffered by the worker are also considered work-related accidents, when they are aggravated as a consequence of a work-related accident, as well as those that have their origin in the means of healing of the injured person.

1.5. Risk Prevention Techniques

Prevention is the "tool" used for the protection of the worker's health in the work environment.

Occupational Safety, Industrial Hygiene, Occupational Medicine and Ergonomics and Psychosociology are the preventive techniques used to improve working conditions by fighting against accidents and occupational diseases and ensuring that work is carried out in "**comfortable**" conditions, which, in addition to not harming physically, mentally or socially, allow the integral development of individuals through their work:

- **Occupational Safety** studies the material conditions that endanger the physical integrity of workers due to accidents at work.
- **Industrial Hygiene** studies the physical, chemical and biological contaminants present in the work environment, which can cause reversible or permanent alterations in health (occupational diseases).
- **Ergonomics** is about adapting work to man. If we accept that health is a balance between the physical, mental and social aspects of the person, we cannot reduce occupational health only to fighting against the negative aspects of work.
- **Psychosociology** studies the psychological damage that a person may suffer at work, as well as the elements that cause dissatisfaction.
- **Occupational Medicine** studies the consequences of material and environmental conditions on people and, together with the other techniques, tries to establish working conditions that do not generate damage or illness.

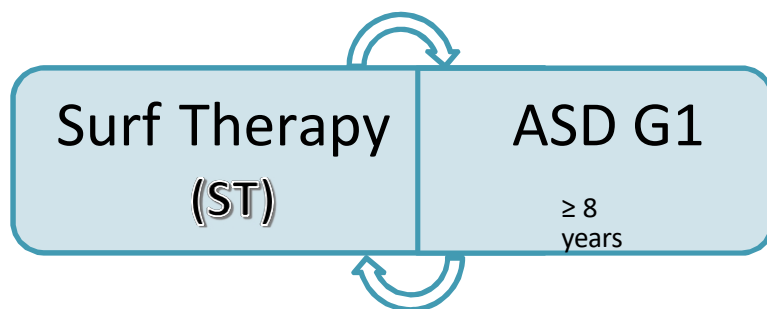
2. General risks associated with the natural environment and the sport of surfing

2.1. Surf Therapy and Autism. Minimization of risks at source. ASD G1

Based on point 1 of art. 15 of the LPRL and the principles of preventive action, the employer shall apply the measures that make up the general duty of prevention provided for in art. 14 of the LPRL, in accordance with the following general principles:

- a) Risk avoidance.
- b) Evaluate risks that cannot be avoided.
- c) Combat risks at their source.
- d) Adapting work to the individual, particularly with regard to the design of workstations, as well as the choice of equipment and work and production methods, with a view, in particular, to reducing monotonous and repetitive work and its effects on health.
- e) Take into account the evolution of the technique.
- f) Substitute what is dangerous with what entails little or no danger.
- g) To plan prevention, seeking a coherent whole that integrates technique, work organization, working conditions, social relations and the influence of environmental factors at work.
- h) Adopt measures that put collective protection before individual protection.
- i) Give proper instructions to workers.

Specifically, and in order to combat risks at their source, reducing the probability of certain risks materializing, more specifically of psychosocial origin, the therapeutic surfing activity will be aimed at children over 8 years of age with grade 1 autism spectrum disorder (ASD).



Likewise, and in accordance with point 2 of art. 15 of the Occupational Risk Prevention Law:

"The employer shall take into consideration the professional capabilities of the workers in terms of safety and health when entrusting them with tasks."

Limiting the autism spectrum to level 1 (Mild Autism) takes into consideration this point, reducing the training needs of the workers (surf instructors) to be able to safely carry out the therapeutic surfing activity.

Users with ASD G1 need moderate assistance to function appropriately in social situations, to detect and correctly interpret nonverbal language cues, and to acquire new skills and knowledge that are not within their immediate areas of interest.

According to the Manual of Mental Health Disorders (DSM-5):

DSM 5		
NIVELES DE GRAVEDAD	COMUNICACIÓN SOCIAL	COMPORTAMIENTOS RESTRINGIDOS Y REPETITIVOS
Grado 1 "Necesita ayuda"	Sin ayuda <i>in situ</i> , las deficiencias en la comunicación social causan problemas importantes. Dificultad para iniciar interacciones sociales y ejemplos claros de respuestas atípicas o insatisfactorias a la apertura social de otras personas. Puede parecer que tiene poco interés en las interacciones sociales. Por ejemplo, una persona que es capaz de hablar con frases completas y que establece comunicación pero cuya conversación amplia con otras personas falla y cuyos intentos de hacer amigos son excéntricos y habitualmente sin éxito.	La inflexibilidad de comportamiento causa una interferencia significativa con el funcionamiento en uno o más contextos. Dificultad para alternar actividades. Los problemas de organización y de planificación dificultan la autonomía.

2.2. General risks associated with the natural environment and the sport of surfing. Prevention and/or protection measures.

2.2.1. Introduction

The term **working conditions** was coined to encompass in a single concept aspects of work that may affect the health of workers.

According to this term, working conditions encompass three different areas:

- The **work environment**. Understanding as such the set of material aspects that make up the environment where a task is performed (safety conditions, chemical, physical, biological contaminants, etc.).
- The **demands of the tasks**. The pace and workload of the task to be performed (efforts, postures, attention, monotony, etc.).
- The **organization of work**. The way in which the work is broken down into elementary tasks, as well as the distribution among the different individuals, together with the speed of execution, authority and hierarchy structures, established relationships, etc.

The concept of working conditions encompasses the whole set of variables that define the performance of a specific task and the environment in which it is carried out. Each of these variables, susceptible of causing damage to the health of the people who work, are called **risk factors**.

The risks and risk factors to which workers may be exposed are identified below, as well as the preventive and/or protective measures to be adopted for their control.



2.2.2. Access to the work area and stay on the beach

The conditions of access and permanence on the beach may generate the risks listed below:

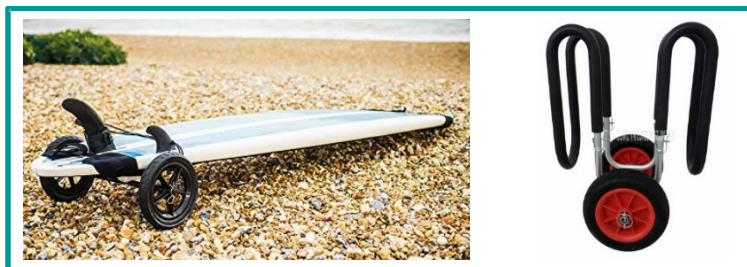
ACCESS RISKS	RISK FACTORS
▪ Falls to the same level ▪ Falls to different levels ▪ Blows and/or cuts ▪ Collision with stationary objects ▪ Musculoskeletal disorders ▪ Footsteps on objects	• Beach access stairs in poor condition, very steep, unstable (raised boards, nonexistent, etc.). • Inadequate footwear • Chipped handrails • Steps (narrow tread/raised riser) • Transportation of material for the development of the surf therapy session. • Lack of auxiliary means of transport • Slippery surfaces • Shells, pebbles, various waste abandoned by users on the beach

Preventive access measures:



- Prior establishment of the most appropriate access to the work area, taking into account the orography of the terrain, state of conservation of the walkways, ease of transport of the material required for the session, among others.

- Avoid access from places other than those where they are established.
- Avoid passing through areas with overgrown vegetation and use well-traveled paths. Keep at least one hand free.
- Use of footwear that allows good foot support (such as booties).
- Ride with caution in all places that may be slippery.
- Use, whenever possible, auxiliary means of transporting the material required for the session (trolleys and conveyor belts).



- Observe the condition of the handrails prior to use, which may be chipped, with sharp and/or pointed elements.
- Use of handrails for ascending and descending fixed ladders as long as they are in good condition.

RISKS (Permanence on the beach)	RISK FACTORS
■ Footsteps on objects ■ Projection of fragments and/or particles ■ Accidents caused by animals or plants ■ Solar radiation (UVA and UVB) ■ Thermal Stress	● Shells, pebbles, various waste abandoned by users on the beach ● Insects (mosquitoes, wasps, bees, etc.) ● Solar radiation - outdoor works ● Exposure to extreme temperatures

Preventive measures for staying on the beach:

- Wear appropriate footwear such as neoprene booties or sandals with Velcro straps to protect you from possible cuts and punctures and be slip-resistant.
- Have a portable first aid kit in the vicinity of the work area.

- Use of insect repellents.
- Remove the sting from the skin in the case of insect stings (bees, wasps, etc.) and disinfect the wound. It may be useful to apply an aqueous solution or cold compresses.

Solar radiation contains infrared and ultraviolet rays (A, B, C). Type B ultraviolet rays can cause eye conditions (burns with coagulation, edema and vasodilatation) in the conjunctiva and cornea such as conjunctivitis, keratitis, cataracts (in cases of long exposure to infrared rays), etc. Skin conditions (irritation, burns, cancer, etc.) may also occur.

Specific preventive measures against solar radiation:

- Sheltered areas should be available in workplaces to protect from direct sunlight and where people can stay in the shade during rest periods.
- Limit sun exposure as much as possible, mainly in the central hours of the day.
- Periodically apply sunscreen creams and use personal protection means, sunglasses with side shields, T-shirts and hats. Sunscreen creams should be applied systematically and continuously, with special insistence on sun-exposed areas such as the face, nose, ears, lips, arms, shoulders, feet and legs.
- It is advisable to use T-shirts / lycra with a protection factor of UPF +50 against ultraviolet radiation.
- Protect eyes with glasses with lenses that provide 100% protection against UV radiation.
- Outdoor workers should protect themselves as soon as the UV index reaches level 3.



The use of products with broad spectrum protection against UVA and UVB rays and with a sun protection factor (SPF) value of 30 or higher is recommended.

Radiation level (UVI)	Clear Skin		Dark Skin	
	Max. unprotected exposure	Indicated protection index	Max. unprotected exposure	Indicated protection index
0-2 (low)	80 minutes	15	110 minutes	8
3-5 (moderate)	40 minutes	25	60 minutes	15
6-7 (high)	25 minutes	30	35 minutes	25
8-10 (very high) summer	20 minutes	50+	30 minutes	30
11+ (extreme) summer	15 minutes	50+	25 minutes	50+

- Thermal heat stress and specific preventive measures

Heat stress corresponds to the net heat load to which workers are exposed and which results from the combined contribution of the environmental conditions of the place where they work, the physical activity they perform and the characteristics of the clothing they wear.



Heat is a health hazard because our body, in order to function normally, needs to maintain an unchanging internal temperature of around 37°C. When the body's core temperature exceeds 38 °C, it can cause damage to health and, at 40.5 °C and above, death.

Heat stress is the physiological response of the human body to heat stress and corresponds to the cost to the human body of the adjustment required to maintain the internal temperature in the appropriate range.

thermal overload depends on factors specific to each person, which may even vary over time, so that these factors or personal characteristics are those that determine the physiological capacity to respond to heat.

These personal risk factors, which reduce individual tolerance to heat stress, include age, obesity, hydration, consumption of medication or alcoholic beverages, gender and acclimatization.

HEALTH EFFECTS OF HEAT EXPOSURE	
Heat syncope	Loss of consciousness or fainting are warning signs of heat stress. Prolonged standing or standing still in a hot environment with rapid change of posture can cause a drop in blood pressure with decreased blood flow to the brain. It usually occurs in workers who are not acclimatized at the beginning of heat exposure.
Dehydration and electrolyte losses	Prolonged exposure to heat involves loss of water and electrolytes through sweating. Thirst is not a good indicator of dehydration. Failure to rehydrate the body and electrolyte levels results in gastrointestinal problems and muscle cramps.

HEALTH EFFECTS OF HEAT EXPOSURE	
Heat exhaustion	It occurs mainly when there is severe dehydration. Symptoms include loss of work capacity, decreased psychomotor skills, nausea, fatigue, etc. If it is not a very serious situation, with rehydration and rest the individual recovers.
Heat Shock	It develops when thermoregulation has been overcome, and the body has used most of its defenses to combat hyperthermia (increased internal temperature above normal). It is characterized by a high increase in core temperature above 40.5 °C, and the skin is hot and dry due to a lack of sweating. In this case, medical assistance and hospitalization are necessary because the consequences may last for several days.

Royal Decree Law 4/2023 of May 11 establishes general criteria for the prevention of occupational risks in episodes of high temperatures and amends RD 486/97 and introduces a single additional provision on environmental conditions in outdoor work.

In order to prevent the adverse effects of exposure to heat on the health of workers, preventive and/or protective measures will be required, especially when the State Meteorological Agency or, as the case may be, the corresponding regional body in the case of autonomous communities that have such a service, issues an orange or red warning of adverse meteorological phenomena.

- Reciprocal surveillance between workers (instructors/support personnel) exposed during work, to identify early on the effects of heat (cramps, dehydration, heat exhaustion), as well as to ensure adequate water intake throughout the workday, control of maximum exposure time and minimum rest time, and the application of personal cooling measures.

- Application of personal cooling measures (wetting the head, neck, etc.).
- Provide shaded areas on the beach with tents, umbrellas, etc., if there are no shaded areas on the beach to take breaks and keep the water cool as much as possible.
- Raise awareness among workers to drink water frequently for effective fluid replenishment.

An adequate hydration pattern includes drinking regularly, i.e., a glass of water every 20-30 minutes. In addition, it is recommended to drink 500-750 ml (two glasses of water) before starting work, and to continue hydration during breaks and at the end of the day.

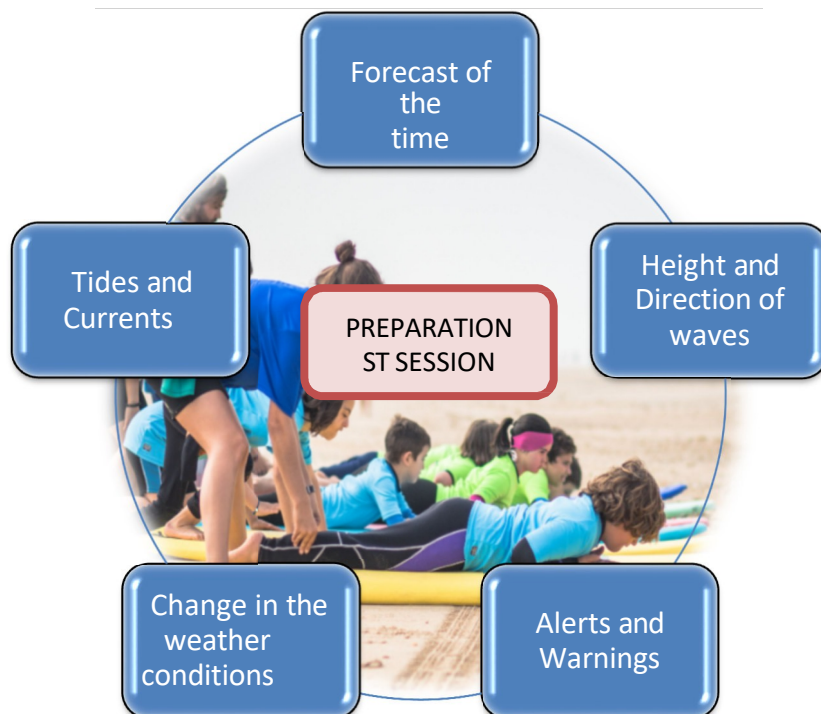
- The development of the TS sessions will be carried out avoiding the central hours of the day, between 14:00 and 17:00 h, especially during the temperature alert situations established by the competent authority in each autonomous community.
- Ensure specific health surveillance of workers.
- Cease activity if they detect any of the symptoms of heat stroke (cramps, dizziness, cold and wet skin due to sweating, signs of dehydration such as thirst, dry mouth and mucous membranes, weakness, excessive fatigue, nausea, tachycardia, etc.). Remove to a cool place until they recover, as continuing to work can be very dangerous. Communicate the situation to co-workers and direct superior command. If symptoms persist, call 112.
- Particularly sensitive people (pregnant workers, minors, people with previous conditions / pathologies not compatible with work in extreme hot environments) will have their personal characteristics or known biological state taken into account by applying the corresponding specific health surveillance protocols.

2.2.3. Risks and preventive and/or protective measures for the practice of Surf Therapy.

RISKS	RISK FACTORS
▪ Drowning ▪ Accidents caused by aquatic animals ▪ Blows and/or cuts by objects ▪ Stepping on objects ▪ Thermal stress due to cold	• Meteorological factors • Shells, pebbles, various waste abandoned by users on the beach • Marine animals (spider fish, jellyfish, etc.) • Surfboard collisions/ Blows with surfboards • Users' aquatic fluency • Water temperature • User behavioral disorders

The best way to avoid accidents is to prevent them. Surfing safety is directly linked to **meteorological factors**, and understanding them is essential to ensure the safety of instructors, volunteers and users, especially to minimize the risk of drowning.

Prior to the development of the surf therapy activity, we will have to evaluate if these factors are adequate.



Weather Forecast: Consult the weather forecast prior to the activity. Look for updated information on wind speed and direction, as well as general sea conditions. Avoid days with strong winds, as they may affect stability in the water.

Tides and Currents: The coordinator and instructors will be familiar with the local tides and understand how they affect the currents on the beach that has been selected. Currents can vary in intensity and direction, and understanding them is crucial to avoid dangerous situations. Avoid surfing during low tides, as this can expose rocks and increase the risk of injury.

Wave Height and Direction: Wave height and direction are critical factors. It is preferable to choose days with more gentle and predictable waves. Consult local surf reports for details on sea conditions. Avoid surfing in waves that are too large, as they can create dangerous situations for instructors and/or volunteers (user behavioral disorders).

Change in Conditions: Weather conditions can change rapidly. Continually watch the sky for signs of sudden weather changes, such as thunderstorms or changes in wind. If conditions worsen, it is preferable to abandon the surf therapy session to ensure everyone's safety.

Alerts and Warnings: Check for local weather alerts or warnings before conducting the ST beach session. Pay special attention to adverse conditions, such as thunderstorms or strong currents. Complying with safety recommendations is essential to avoid unnecessary risks.

In addition to weather conditions, there are other risk factors that could lead to the risk of drowning of instructors/volunteers:

- Lack of aquatic fluency of the user.
- Collisions with the surfboard (blows to the head) or other surfers.
- User behavior disorder (panic/fear) in the aquatic environment Among

the preventive measures to be adopted, the following are established:

- It is recommended that the user knows how to swim or at least stay afloat, otherwise, it will be necessary for the user to wear a life jacket or similar.
- Water at or below the waist.
- Maintaining a sufficient lateral safety distance between surfers and bathers.

- Use of soft boards preferably
- Communication and coordination in the water. In the water, nonverbal communication is key. Use simple gestures to indicate directions or to signal the presence of obstacles.
Effective communication through gestures can be vital, especially when waves are noisy and verbal communication is difficult.

The risk of exposure to cold is present in the practice of surfing in winter or even at other times of the year.

We can have a feeling of thermal discomfort from temperatures below 15 °C (ambient temperature), however, the feeling of cold is not only linked to temperature, as it can be accentuated by factors such as wind (air speed) and humidity. Likewise, a water temperature below 24 °C without a suitable protective suit can lead to generalized cooling of the body and the onset of hypothermia symptoms.

In order to minimize cold exposure of instructors and support personnel, the following preventive measures will be taken:

- The thickness of the wetsuit will be appropriate to the water temperature of the beach where we are carrying out the ST sessions.

	WATER T° WATER T° WATER T° WATER T° WATER T° WATER T°		GROSOR	HAT	GLOVES	ESCAPINES
SUMMER	> 22°		SWIMMING SUIT	×	×	×
	19°		2 mm	×	×	×
	15°		3 mm	×	×	×
WINTER	12°		4 mm	×	×	○
	9 °		5 mm	○	○	✓
	< 6		6 mm	✓	✓	✓
	✓			×	○	

- On beaches with cold or very cold water temperatures, the use of neoprene

accessories such as booties, hoods and even gloves will be considered.

- During the development of the ground workshops, pay special attention to the protection of the head, neck, feet and hands, as these are the most sensitive areas and the ones that lose the most heat.
- Between ST sessions, drink warm beverages, avoiding caffeinated beverages (it causes vasodilation and favors the loss of body heat).

Signs and symptoms of hypothermia usually develop slowly and include the following: Shivering, although it may stop when the body temperature drops. Slurred or slurred speech. Slow, shallow breathing.

In case of mild symptoms of chills, leave the beach accompanied by another instructor, move to a place where you can take shelter and put on dry clothes. Ingest warm drinks and apply gradual heat, using thermal blankets or warm bodies. Rub or make gentle movements on the extremities to stimulate circulation.

In severe cases, seek medical help immediately. Severe hypothermia can be life threatening.

3. Psychosocial risks and occupational stress

3.1. Introduction

Psychosociology of work, from the perspective of occupational risk prevention, is a discipline that deals with psychosocial or organizational working conditions, also called **psychosocial factors**.

These working conditions, when poor, deficient and/or adverse, either due to inadequate design, development or implementation in the organization, interact with the expectations, needs, capabilities and/or attitudes of workers, have a negative impact on their safety, health and well-being, thus becoming a source of risk that needs to be managed.

For the study of psychosocial factors and work stress there are different theoretical approaches, a common element being the mutual relationship between the work context and the person. "Problems on health appear when the demands of the job are not adapted to the needs, expectations or capabilities of the worker."

The detrimental consequences, on the other hand, are not only on individuals but also on the organization, reflected in an increase in absenteeism or labor conflicts, voluntary departures from the company on the part of workers, low productivity, etc.

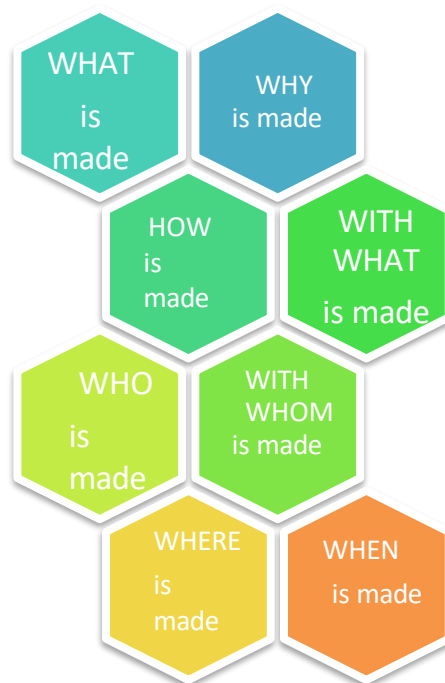
The reactions to a given psychosocial situation are not the same for all workers, but rather certain characteristics specific to each worker (personality, needs, expectations, vulnerability, adaptability, etc.) will determine the magnitude and nature of both their reactions and the consequences.

Thus, psychosocial factors can affect motivation and job satisfaction and generate stress depending on the worker's perception of them and his or her ability to cope with or respond to them.



3.2. Psychosocial Risk Factors

Psychosocial factors are working conditions directly related to issues such as: how much work has to be done, in what time frame, at what speed, what level of knowledge or skills is required to do it, what decision-making capacity and autonomy is available, what sources of support are available (other colleagues, technology, etc.), what type of social relations exist between workers and managers, etc.



When these working conditions are inadequately or poorly designed or implemented, they become **PSYCHOSOCIAL RISK FACTORS**, and have the potential to negatively affect workers' safety, physical, cognitive, emotional and/or social health.

PSYCHOSOCIAL RISK FACTORS

Working conditions related to the organization of work, the content and execution of tasks and the interpersonal relationships and contexts in which work is performed, which are inadequately or deficiently materialized (by design, configuration, dimensioning and/or implementation), and which, when present, increase the probability of generating negative consequences for the safety and health of workers.

There are different more or less homogeneous classifications of psychosocial risk factors.

The following is a list of psychosocial risk factors based on the classification of the **European Framework for Psychosocial Risk Management (PRIMA EF)**, proposed by a consortium involving several European institutes as well as the ILO and the WHO.

Table 1 presents a non-exhaustive list of the components or characteristics of working conditions that may contribute to their becoming psychosocial risk factors.

WORKING CONDITION/FACTOR PSYCHOSOCIAL	COMPONENTS TO BE ANALYZED
WORK CONTENT	Very short cycles, fragmentation, excessive complexity, meaningless work, excessive or too short duration, repetitiveness, little variety, low task value, mismatch of skills and demands, significant or continuous emotional demands, tasks that generate risk of violence, etc.
WORKLOAD/WORK RATE	Underload or overload, high or imposed or inadequate pace, inflexible deadlines poorly planned or not adapted, continuous concentration/attention levels, interruptions, consequences of errors, unpredictability, strict and/or inadequate execution times, insufficient information, multitasking, need for permanent updating, etc.
WORKING TIME	Nocturnality, shift work, excessive working hours, irregularity of schedules, unpredictability, insufficient rest breaks, weekend work, availability constant, hyperconnectivity, etc.
PARTICIPATION/ CONTROL	Lack of temporal or decisional autonomy, difficulty to have initiative and participation, impossibility to make proposals, leadership deficit, etc.
ROLE PERFORMANCE	Indefiniteness, conflict with own values, contradictory roles or functions contradictory between with each other, ambiguity, overload, responsibility over people, etc.
PROFESSIONAL DEVELOPMENT	Inadequate or insufficient promotion, career stagnation, precarious contractual conditions, inadequate remuneration, insufficient education or training, lack of compensation, recognition or status, inequity, etc.

WORKING CONDITION/FACTOR	COMPONENTS TO BE ANALYZED
PSYCHOSOCIAL	
INTERPERSONAL RELATIONS/ SUPPORT	Poor or inadequate social support, poor quality of personal relationships, conflictive situations, mistrust, social isolation, etc.
RT SOCIAL EQUIPMENT FROM WORK EQUIPMENT AND EXPOSURE TO OTHER RISKS	Hazards Technologies, equipment, tools, design, maintenance, suitability, physical environment, exposure to hazards, etc.

Table 1. Psychosocial risk factors

3.3. Consequences of exposure to psychosocial risk factors.

Exposure to psychosocial risk factors at work increases the probability of negative effects on the safety and physical, cognitive, emotional and social health of individuals, as well as on organizations and society as a whole. This exposure increases the probability of stress or violence in any of its manifestations, commonly known as PSYCHOSOCIAL RISKS.

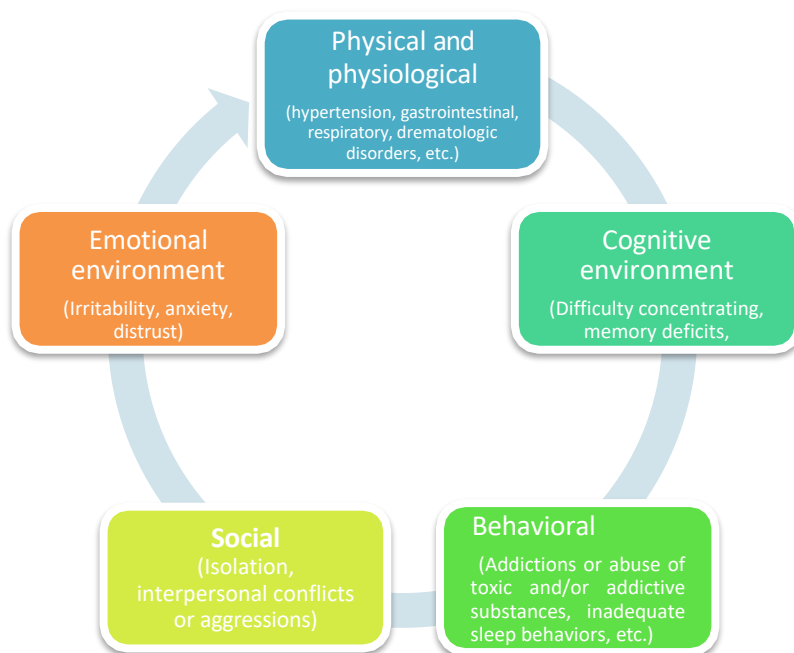
Violence derived from exposure to psychosocial risk factors can manifest itself through situations of moral and psychological harassment or mobbing, sexual or gender-based harassment, discriminatory harassment or external occupational violence. It is necessary to prevent any of them due to the high impact on the safety and health of the people affected by these risks.



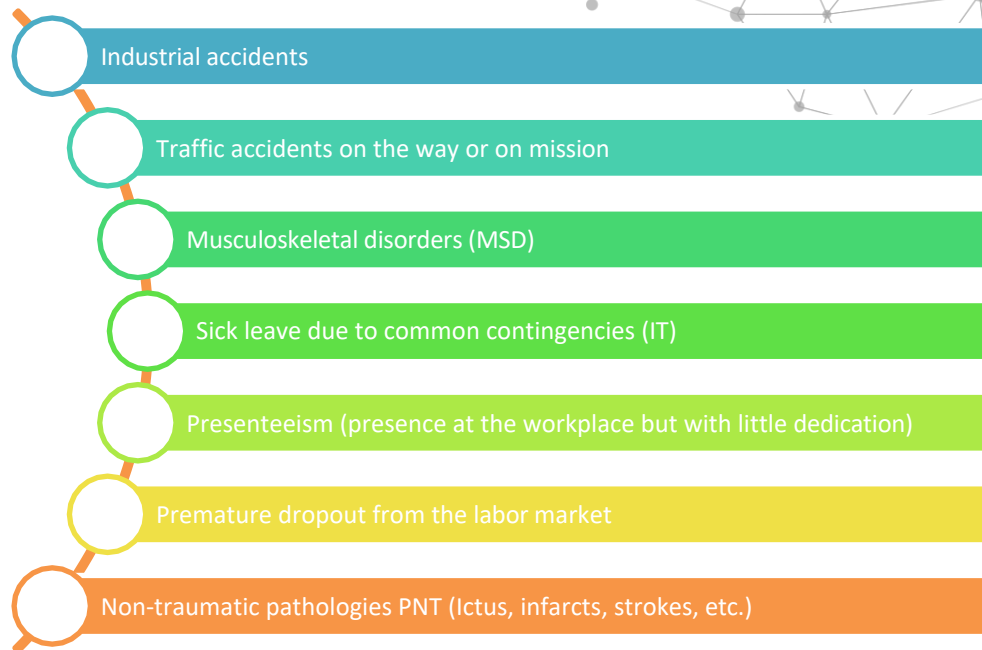
The following are basic definitions of each of them:

LABOR STRESS	HARASSMENT AND WORKPLACE VIOLENCE
Ongoing stress caused by a perceived imbalance between work demands and the ability to meet them with the available resources of both workers and the organization.	Conduct, attitudes and behaviors that involve aggression, abuse, harassment or physical and/or psychological intimidation. It includes the different types of harassment.

Damage to health resulting from exposure to psychosocial risk factors can materialize, depending on the area affected, at various levels:



Other consequences of exposure to psychosocial risk factors are the following.
can be summarized in the following chart (non-exhaustive list):



3.4. Psychosocial Management Process

The basic and fundamental object of psychosocial management is working conditions of a psychosocial nature. Its objective is the elimination of the risk originating from these working conditions or, when elimination is not possible, their reduction to tolerable limits, through the evaluation, intervention and control of psychosocial risk factors.

Ideally, prevention should be integrated into the design phase, taking into account the **psychosocial design of the workstations**. The organizational conditions of the jobs (timetable, time availability, amount of task to be performed, complexity of the task, communication system, job recognition, clarity of functions, etc.) should be adequately designed and conceived, regardless of who occupies those jobs.

Likewise, interventions should be made on inadequate working conditions that, because they are known, do not require prior evaluations and can be directly eliminated or improved from the preventive point of view without the need to establish a psychosocial evaluation process to justify this preventive measure.

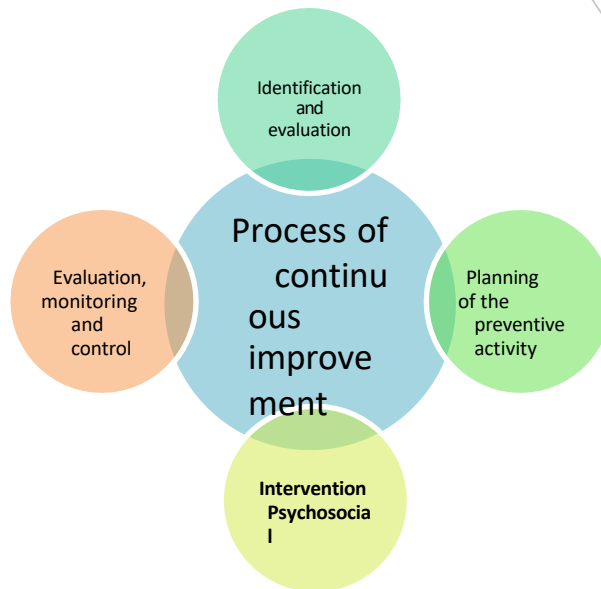
The employer must adequately design workplaces from a psychosocial point of view and ensure, with the tools of health and safety management, that this design allows the psychosocial health and safety of workers to be protected. The way to do this is through an adequate and effective identification and evaluation of psychosocial risks, as stated in the preventive regulations (Art 15 1. LPRL).

To this end, the preventive process must follow the following steps:

1. Identify the risks present in a given activity, position or organizational environment.
2. Avoidance of identified risks
3. Evaluate identified non-preventable risks
4. Controlling risks



Therefore, the general process of psychosocial risk management is very similar to that of any other type of risk management. other types of occupational risk, and is usually carried out with management systems based on continuous improvement.



Assessing psychosocial risk factors involves knowing the extent to which certain working conditions are at levels or of a size that have the potential to negatively influence the safety and health of workers, in order to define, if necessary, measures for their elimination, reduction or control. The assessment methodologies used must be based on a defined theoretical framework and must measure exposure to psychosocial risk factors for which there is reasonable scientific evidence that they may affect the safety and health of people.

3.5. Psychosocial Intervention

Psychosocial intervention consists of defining, planning, implementing and monitoring specific preventive actions aimed at eliminating, reducing and/or controlling exposure to psychosocial risk factors. These measures will be focused primarily on psychosocial working conditions, but also on people and the interaction between the two.

Even if the psychosocial assessment has been led by external consultants, the company will have to take ownership of the results of the diagnosis of the situation and the planning of the preventive activity derived from this assessment, turning it into its own adapted action plan. It is the responsibility of the organization, through the hierarchical line, to drive, promote and carry out the action plan, integrating all areas of the company that are involved.

There is no vademecum of psychosocial intervention indicated for each situation. Each risk factor detected will require a tailored intervention, with specific solutions for that organizational environment. Resources for developing an intervention program would include:

- The risk assessment report, often quantitative, which should also be analyzed and interpreted qualitatively.
- The general preventive recommendations provided by the assessment tools and psychosociology manuals, which must be adapted and specified in specific preventive measures for each company.
- The key people within the organization, who should be actively involved in the process, and who may or may not be organized.
- The experience accumulated in other areas of management and preventive activity.
- Best practices carried out by other companies and organizations

In Psychosociology, as in the rest of the preventive disciplines, there are three main groups of measures:

Primary prevention or PSYCHOSOCIAL PREVENTION measures

- Prevention at source. Its objective is to eliminate or reduce exposure by modifying the risk factors of the company, the workers and the work environment.

Secondary Prevention or PSYCHOSOCIAL PROTECTION measures

- Strategies to improve the response capacity and coping capacity of people already exposed. Its objective is to increase personal and organizational resources.

Tertiary prevention or RECOVERY or EMERGENCY measures

- Strategies for recovery, rehabilitation and/or reincorporation to work in people who already present negative effects or damage.

3.6. SURFEDAUT's best practices in the face of psychosocial risks

- Evaluation of psychosocial factors. The surf therapy schools will identify and evaluate psychosocial risks through quantitative and/or qualitative methodologies, establishing, if required, the development and implementation of an intervention program.
- The surf therapy activity will be directed to a population from 8 years old, adolescents and adults with a confirmed diagnosis of ASD grade 1 according to DSM 5 criteria and Pervasive Developmental Disorders of ICD 11.
- Training of surf coordinators and instructors in relation to barriers to learning and participation of G1 ASD users as well as tools and strategies to overcome these barriers. Psychological demands involving cognitive and emotional demands.
- Surf therapy coordinators/instructors will need to have information regarding:
 - a) The participant's health profile: data concerning possible episodes of epilepsy of the participant, allergies-intolerances, physical disability that may influence the development of the TS session, etc.
 - b) Previous data regarding the user's previous experience with surfing
 - c) Data relating to the user's functional capacity for therapeutic surfing: dressing-undressing (surfing suit, lycra), carrying surfboard, performing basic warm-up exercises, entering the water, paddling, kneeling, etc.).
 - d) Particular data related to their relational skills, autonomy, motor difficulties, etc.

All this information will allow the ST coordinator/instructor to have an overview of the user, to foresee adaptations, to establish previous strategies to overcome possible barriers to the ST activity (minimization of work stress by facilitating resources to meet the demands of the task).

The SurFedAUT Best Practices Manual provides pre-information questionnaires that cover the aforementioned aspects:

- Tab 1. Initial adaptation questionnaire of the participant/user.
- Sheet 2. Participant's health profile sheet
- Surf therapy schools will have clearly defined competencies for the surf therapy coordinator (ISTC) and the surf therapy instructor (IST). Clear specification of roles and responsibilities before, during and after completion of the TS sessions (Role Definition).

The Surfedaut Best Practices Manual establishes general competencies for the figures of:

- 1) Therapeutic surfing instructor coordinator (a)
- 2) Therapeutic surfing instructor
- 3) Support personnel (non-labor personnel)

It also establishes the competencies within the participant's work plan, the forecast plan for the development of the TS session and the protocols for preparation, development and completion established in the SurfFedAut manual of good practices for ASD G1 users.

- Establishment of supervision ratios during the development of the TS sessions that can be assumed by the TS instructors. The IST Coordinator (a) will establish the supervision ratio during the development of the therapeutic session depending on the expected weather and sea conditions, functional capacities of the users, previous experiences, etc. An inadequate ratio could constitute a stress factor for the IST/ IST Coordinator (a) during the development of the TS sessions.
- Therapeutic surf schools shall have a protocol for the prevention of and action against labor, sexual and gender-based harassment or other discrimination.

External occupational violence. Aggressions resulting from behavioral disorders of users (ASD G1).

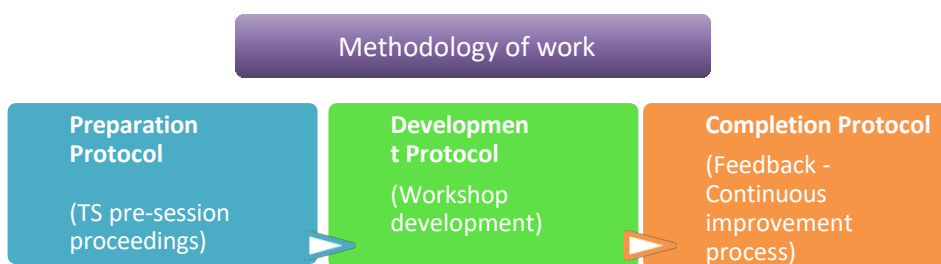
The user with Autism Spectrum Disorder (ASD) is characterized by restrictive patterns of behaviors, activities and interests based on, among others, insistence on monotony, excessive inflexibility to routines or ritualized patterns of verbal or non-verbal behavior (e.g. extreme discomfort with small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to always follow the same path or always eat the same food).

Anticipatory difficulties, i.e., difficulties in understanding what is going to happen, have a clear impact on the resistance of people with ASD to changes in the environment. ASD show barriers to unstructured environments.

In order to avoid possible behavioral disorders that could lead to aggression towards coordinators/instructors during the development of the TS sessions:

- Users will be provided with the context of the ST activity (where we are going, what we will do, with whom, etc.) through visual and/or audiovisual resources (presentation/short video) prior to the activity.
- The ST sessions will be structured and follow established guidelines for operation and duration. Establishment of working procedures (work plans, protocols).

The SurFedAUT Best Practices Manual provides a work methodology structured in several pre-work plans and protocols, assigning competencies to the IST and the ISTC. Each of the protocols, in turn, is segmented into tasks and/or workshops. It is a tool available to surf schools to minimize the occurrence of behavioral disorders in G1 ASD users.



The development of the plans and protocols (work methodology) of the SurFedAUT best practices manual is based on the experience of more than 15 years of the SOLO SURF ASSOCIATION and on the involvement and collaboration of the early childhood care centers (CAIT) and other associations.

- Activity evaluation tools will be available in order to know the degree of satisfaction of the user, carrying out the necessary adaptations in subsequent sessions. Prior identification of possible maladaptations that may cause behavioral alterations in future sessions.
- Feedback from TS coordinators and instructors through checklists, periodic meetings to manage possible incidents that may have occurred and the establishment of preventive measures in this regard.

External occupational violence exercised by family members or companions

External occupational violence is understood as any threat, verbal or physical abuse, intimidation and physical attack in the exercise of the profession, by users, family members or companions, which takes the form of aggression, whether physical (hitting, beating, scratching, etc.), psychological (insults, threats, etc.) or, in some cases, both.

- Have a protocol for prevention and action in situations of external violence aimed at TS coordinators/instructors. Inform workers about it.

Actions during the Risk Situation: Active Measures

- Remain calm and try to contain the situation: do not respond to verbal aggressions or provocations, trying to redirect the situation and seeking possible points of agreement. Do not carry out any type of action that could be interpreted as a threat to the aggressor.
- The presence of a colleague or person close to you will be requested to help you end the violent situation and to serve as a witness to the facts.
- In the event that the violent situation persists, call for immediate assistance from the State Security Forces or the emergency service through 112.