



**Best Practice Statements for
physiotherapists working with
older people during a disaster,
conflict or pandemic.**



**International Association of Physiotherapists
working with Older People**

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Contents

1.0 Introduction	2
1.1 Terms of reference	2
1.2 Approach	2
2.0 Literature review	3
2.1 International and national documents	3
2.2 Other papers identified	4
2.3 Literature specific to physiotherapy with older people and disasters	4
2.4 Literature specific to physiotherapy with older people during conflict	4
2.5 Literature specific to physiotherapy with older people during a pandemic	4
3.0 Best Practice Statements	5
4.0 Examples from practice	9
Appendix 1: Search strategies	11
Appendix 2: Relevant content from national and international documents	13
Appendix 3: Overview of other papers identified by informal means	18
Appendix 4: Key points from papers identified following MeSH terms search	20
Disasters.....	20
Conflicts	21
Pandemics	21
References	26

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1.0 Introduction

The International Association of Physiotherapists working with Older People (IPTOP) are a speciality group of World Physiotherapy. IPTOP has the intention to be the international resource for physiotherapists working with older people.

IPTOP is made up of member organisations representing physiotherapists working with older people in their countries. In 2024 IPTOP was approached by a member organisation with a request to develop support for members who were working with older people during a disaster, conflict or pandemic.

IPTOP agreed that this was an area where there appeared to be little specific guidance or policy pertinent to physiotherapists working with older people. In response, a short life working group (SLWG) was formed consisting of a member of the IPTOP executive committee and representatives of member organisations nominated by the organisations.

1.1 Terms of reference

The IPTOP executive developed terms of reference to guide the SLWG in their work. They were to:

- Identify key and current documents that include policies or guidelines for disasters, conflict or pandemics in healthcare or rehabilitation.
- Review these documents to identify any guidance for physiotherapists working with older people in disaster, conflict or pandemic contexts. The scope included both the acute and longer-term impacts on older people and older people's physiotherapy services across a variety of settings.
- Liaise with key professionals who have worked in settings of disasters, conflict or pandemics to gather examples from practice.
- Develop best practice statements that include both general and specific recommendations for each of a disaster, conflict and pandemic, as indicated by the earlier document review.
- Consider how the best practice statements can be applied to influence relevant legislation and policy development in member countries.
- Consider inclusion of statements that address the physical and mental health needs of physiotherapists working with older people during a disaster, conflict and pandemic

1.2 Approach

The approach used was that of forming best practice consensus statements following an overview of available literature and discussions with member organisations and physiotherapists with lived experience. The SLWG did not have the scope to carry out a full

review or examination of literature using appraisal tools as would be undertaken in a formal review or guideline. This best practice document must be read with an understanding of the limitations of the approach used.

This best practice statement document is intended to supplement international or national guidance documents and does not repeat general best practice statements relevant to all populations and health settings.

Specifically, physiotherapists are directed to the World Physiotherapy report 'The role of physical therapists in disaster management'¹, the American Red Cross/American Academy of Nursing older adult disaster preparedness recommendations² and the Minimum standards for age and disability inclusion in humanitarian action³.

The approach used was to

- examine relevant international and national documents for mention of older people and physiotherapy
- search for literature relevant to physiotherapy with older people specific to a disaster, conflict or pandemic situation
- review the papers found following the search, highlighting pertinent best practice points
- gather all evidence highlighted to develop the best practice statements
- gain consensus on the best practice statements from member organisations
- gather examples from practice from member organisations and those who have had experience of working with older people after a disaster, conflict or pandemic.

This broadly follows the development process for consensus statements suggested by Kwong et al⁴ with the following five steps: topic selection, expert group composition, systematic review of evidence, formulation of recommendations or suggestions and peer review.

We have used person centred language throughout the document, referring to older people and people living with a specific condition as required.

2.0 Literature review

A range of strategies to identify relevant literature were used. These ranged from formal searches for each of the three areas (disasters, conflicts and pandemics) to a general search of relevant organisations material, such as the World Health Organization. The specific search strategies used are documented in Appendix 1.

2.1 International and national documents

The documents reviewed for content specific to physiotherapy with older people were from global or national organisations, such as the World Health Organization, Handicap International and World Physiotherapy. Relevant documents referenced within these

international documents were also scrutinised if this was felt necessary. An overview of relevant content is presented in Appendix 2.

2.2 Other papers identified

Additional papers were identified without using a specific search strategy as a result of reviewing the international and national documents and gaining information from member organisations and other interested parties and stakeholders. An overview of relevant content is presented in Appendix 3.

2.3 Literature specific to physiotherapy with older people and disasters

A search was carried out on PubMed using MeSH terms, detailed in Appendix 1. A total of 180 papers were identified. These were then manually reviewed, and 11 papers were identified for further review to highlight aspects to be included in any best practice statements. The papers and key points are listed in Appendix 4.

2.4 Literature specific to physiotherapy with older people during conflict

A search was carried out on PubMed using MeSH terms, detailed in Appendix 1. A total of 7 papers were identified. These were then manually reviewed and 1 paper was identified for further review to highlight aspects to be included in any best practice statements. The paper and key points are listed in Appendix 4.

2.5 Literature specific to physiotherapy with older people during a pandemic

A search was carried out on PubMed using MeSH terms, detailed in Appendix 1. A total of 602 papers were identified. These were then manually reviewed, and 59 papers were identified for further brief review and to highlight aspects to be included in any best practice statements. The papers and key points are listed in Appendix 4

3.0 Best Practice Statements

Based on the literature review, best practice statements were developed by the SLWG. A consensus was formed on the statements after review by the member countries of IPTOP and the IPTOP executive committee.

These best practice standards are considered to be achievable. However it is recognised that some interpretation will be required based on the setting, resources and support systems available.

General

Training and education

- Physiotherapists working with older people should include emergency management planning into relevant policies and training plans.

Policy and integration of physiotherapy

- Older peoples' ongoing health and rehabilitation needs must be considered alongside an emergency or trauma focussed response.
- Advance planning should include strategies for maintaining rehabilitation services for older people.
- Advance planning should include how to utilise established community organisations and peer support networks to reach older adults in need of care and rehabilitation.
- Groups carrying out advance planning should include older people directly in the process or seek feedback from them as key stakeholders.
- Rehabilitation services for older people should plan for outreach into affected communities, including evacuation centres or temporary shelters (such as tent cities).
- Policies should incorporate specific guidelines for providing rehabilitation services to older people living with issues such as dementia or mobility impairments.
- Planning must include strategies for supporting older people living in residential care homes or similar settings during an emergency.
- Policies should consider the needs of older people who are in a caring role.

Community and individual level

- Collaboration with community-based services and organisations is essential to ensure continuity of care for older people, particularly when healthcare infrastructure is disrupted.
- Individual older people living in high-risk areas should be guided to use the Person-Centred Emergency Preparedness Workbook or the Disaster Preparedness Guide for Older Adults. Their emergency plan should specify how to maintain access to any required mobility aids or other necessary equipment.

- The ability of an older person to walk quickly to a place of safety or shelter should be considered. This should include consideration of their gait speed and maximum walking distance in planning their place of shelter.
- Pathways to places accessed by patients within field hospital or similar centres should be flat or ramped where necessary, and the ground should be compacted or levelled to facilitate safe, independent access for older people.
- Older people should practice getting to their place of safety or shelter on a regular basis.
- Physiotherapists should create personalised intervention plans for older people including both short-term and long-term goals in order to prevent complications and maintain independence.
- Physiotherapy interventions should follow the International classification of functioning, disability and health (ICF) model to optimize recovery and foster resilience, enabling older people to return to their previous level of community participation and maintain their quality of life.

Support for physiotherapists' well-being

- The safety of staff should be considered when planning an appropriate work location and environment.
- Support systems should be in place to address burnout, stress, and the mental toll of crisis work.
- Regular mental health check-ins and peer support networks are essential to maintain resilience.

Disasters:

Integration of physiotherapy in emergency response teams

- Emergency response teams should include physiotherapists or other allied professionals with expertise in addressing the rehabilitation needs of older people.
- Emergency response teams should plan to integrate rehabilitation for older people into existing local teams where possible.

Preventative care, risk assessment and triage

- The role of emergency responders should include preventative care for older people, particularly those with chronic health conditions or disabilities.
- Physiotherapists should be aware that current triage tools may be inaccurate when applied to older people.
- Older people, particularly those living with pre-existing conditions or issues, should be triaged as having increased risk.
- Assessment of function such as ability to get out of bed, get up from the floor and stand on one leg can be used to assist in triaging the level of support a displaced older adult may need.

- The Washington Group Short Set Questions could be used to identify and triage older people to the level of support required.
- Older survivors are at high risk for developing disuse or deconditioning syndromes including aspiration pneumonia⁵. Physiotherapists should play a role in prevention by advocacy strategies, including provision of appropriate equipment and adapting the living environment to support continued mobility and function.

Early initiation of rehabilitation services

- Physiotherapy services must be initiated as soon as possible during both the immediate and recovery phases of disaster response.
- Community-based rehabilitation should be prioritised as an effective and accessible alternative to hospital-based rehabilitation.

Promoting physical activity

- Physiotherapists should recognise that displaced older people are likely to have lower levels of physical activity. Interventions such as exercise programs or walking groups should be employed to counteract these declines.
- Physiotherapists have a crucial role in public health campaigns following disaster, promoting increased physical activity in older people.

Conflict:

No specific best practice statements could be developed for conflict situations due to the paucity of literature in this area.

The general principles and those applicable during disasters should be followed. However it must be recognised that whereas a disaster is often a time limited event, a conflict can be ongoing over an unknown period of time. This has an additional impact on older people who may need to get to a place of safety and shelter multiple times during the conflict period. It also impacts the ongoing recovery of affected health systems which might have a disproportionate impact on older people's rehabilitation services.

Some examples from practice are in Section 4 and these give additional useful information and advice.

Pandemic:

Impact of restriction measures

- Physiotherapy, rehabilitation and physical activity guidance are essential for older people both during and after a pandemic.

- In person or remote access to older people’s physiotherapy services should be maintained to prevent deterioration for older people living with a long-term condition.
- Physiotherapists should promote public health messaging to prevent deconditioning during pandemic related restrictions.
- Physical activity and falls prevention strategies for older people during restricted periods should include home-based exercise. This can be effectively supported through telehealth, online platforms and other virtual methods.
- Physiotherapists can access information for online platforms and virtual access to home-based exercise collated by IPTOP.⁶
- Decision making around the suitability of remote care can be supported by toolkits such as those published in ‘Remote care’.⁷
- Physiotherapy assessments and interventions should be considered using technology enhanced rehabilitation.
- Older people should be offered technical support to enable access to technology enhanced rehabilitation.
- Physiotherapists should be aware that the prevalence of falls can increase during a pandemic and implement both individual and population-level interventions to mitigate this risk.
- Physiotherapists should be aware of the health implications of social isolation and loneliness in older people.

Care during acute illness

- When older people are acutely ill, triage decisions regarding physiotherapy should not rely solely on age-based stratification.
- Frailty scoring tools should be used with caution, and frailty levels should not exclude older people from receiving physiotherapy interventions.
- Physiotherapists should be integral members of a multidisciplinary team offering rehabilitation to older people recovering from acute infection, addressing the broad spectrum of post-pandemic challenges such as frailty, sarcopenia, and long-term cognitive and psychological impairment.
- Physiotherapy following an acute infection should focus on addressing any residual functional deficits, paying special attention to older adults recovering from hospitalisation.
- Discharge planning should be commenced on admission and take account of the older persons’ wishes and preferences.

Workforce planning and preparation

- Physiotherapists redeployed into older people’s services should have adequate training and education to work with an older population.
- Physiotherapists with specialist skills in working with older people should provide ongoing support and training to redeployed staff.

- Physiotherapists redeployed into older people's services should be aware of the IPTOP standards of clinical practice⁸.
- Physiotherapists working in or redeployed to older people's services should have a continuing professional development plan in place to develop or maintain competence in the speciality⁹.
- Appropriate Personal Protective Equipment (PPE) should be available to all staff.

4.0 Examples from practice

We sought examples from practice from our member organisations to illustrate the challenges and best practice when working with older people during an emergency.

Disaster:

An example from practice after an earthquake has been published by Endo et al¹⁰. In it they report on the admission of a 68-year-old woman to a welfare shelter who developed an aspiration pneumonia. She used a walker for mobility at home but became bedridden after shelter admission. Due to multiple patients being admitted to the shelter there were discrepancies in the handover information. This meant she spent most of her time lying in bed, except for meals, leading to a rapid decrease in muscle strength. The paper highlights that the teams mobilised during the disaster were centred around emergency specialists to provide care to trauma patients. However, what was required for many older people was the continuation of longer-term medical care.

Another example from practice following an earthquake highlighted the importance of shared decision making and ongoing training. A meeting of the national physiotherapy association and all of the physiotherapy special interest groups was held immediately after the earthquake to develop a shared action plan. Immediate and regular training was held via webinars to disseminate information to all physiotherapists who may be working with earthquake survivors and there was support from international physiotherapists who specialised in emergency response physiotherapy. The webinars were continued past the immediate emergency in order to inform physiotherapists working outside the disaster area, who were seeing patients once they had transferred from local or field hospitals.

There was also input to people who were displaced and living in 'tent or container cities'. Physiotherapists implemented regular exercise programs to improve the physical function of older people, regardless of whether they had earthquake related injuries or not.

Conflict:

During a war, working while there were frequent alarms in the area, it was necessary to consider whether to transfer an older patient who struggles and is very slow in transitions from a wheelchair to a plinth for rehabilitation practice. The primary consideration is the need to evacuate the patient quickly to a shelter in case of an alarm. In such a situation, it is advisable to explore the option of performing adapted exercises directly in the wheelchair to allow for a quick evacuation if needed.

When people are evacuated from their home because it is located near the conflict area, older people are often transferred to a hotel where there are not all of the necessary assistive devices and accessibility they require. The challenge is to adapt the treatment to the new resource constrained conditions. Often there is a lack of appropriate caregivers within hotels or other temporary places of residence.

Many older individuals have sustained injuries, such as hip fractures, while attempting to reach shelters quickly during alarms and bombings. Given that sirens typically provide only 30 to 90 seconds of warning, older adults with impaired mobility often struggle to reach safety in time. This fear has led many to avoid leaving their homes for basic needs such as shopping or social activities.

Physiotherapists have observed significant trauma related symptoms amongst older patients during a conflict. For example:

- A patient suffered a significant increase in blood pressure after her husband was killed during the conflict, with difficulty stabilising her condition due to limited access to medical services.
- A 75-year-old patient experienced worsening knee pain after sitting for eight hours in a crouched position in a crowded shelter.
- An 87-year-old patient reported sitting for hours in a shelter surrounded by a burning house, inhaling smoke through a damp cloth over her face.

Pandemic:

An 85-year-old male, who was very active in his community before the COVID pandemic, regularly attended his local senior centre. He participated in exercise and art classes, socialized with friends, and walked 30-45 minutes outdoors most days. However, during the early months of the pandemic, he was unable to attend any senior centre events or meet with his friends. He became isolated and spent most of his time indoors, with limited interaction with family due to safety concerns.

He sought physiotherapy after experiencing two falls within a six-month period. Along with physical decline he reported social isolation had severely impacted his mood, leaving him feeling lonely and anxious. This increased his fear of falling, which made him even more reluctant to go outside.

While we addressed his physical symptoms through standard interventions (strengthening, balance exercises, and fall prevention education), we also recognized that social isolation had contributed to his fear of falling, mental health decline, and decreased motivation to stay active. We suspected that isolation may have exacerbated cognitive decline, contributed to feelings of disconnection, and increased his stress levels.

To help, we encouraged him to join a virtual exercise class in hopes of rebuilding a sense of community and allowing him to stay active from home. We also reconnected him with his senior centre to explore safe socialization opportunities and initiated telehealth physiotherapy visits. Gradually, we encouraged him to start walking outdoors again to rebuild his confidence.

Appendix 1: Search strategies

All searches were carried out using the following parameters: the search was for MeSH terms only, filtered to results in English and published in the last 10 years.

Disasters:

Search number	Query	Results
4	((#1) AND (#2)) AND (#3)	180
3	((((health services, geriatric [MeSH Terms]) OR (Geriatric health services [MeSH Terms])) OR (Geriatric health care [MeSH Terms])) OR (Geriatric health system [MeSH Terms])) OR (aged [MeSH Terms])) OR (frail elderly [MeSH Terms])) OR (frail elders [MeSH Terms])	3,522,397
2	((physiotherapy specialty [MeSH Terms]) OR (modality, physical therapy [MeSH Terms])) OR (rehabilitation [MeSH Terms])	374,171
1	(((disaster planning [MeSH Terms]) OR (emergencies [MeSH Terms])) OR (natural disasters [MeSH Terms])) OR (relief work [MeSH Terms])	100,333

Conflict:

#1	Search: (Armed Conflict [Mesh] OR Conflict [MeSH Terms] OR War [MeSH Terms] OR Wars [MeSH Terms]) Filters: in the last 10 years ("armed conflicts"[MeSH Terms] OR "conflict, psychological"[MeSH Terms] OR "armed conflicts"[MeSH Terms] OR "armed conflicts"[MeSH Terms]) AND (y_10[Filter])	7,903
#2	Search: (Physical Therapy Modalities [MeSH Terms] OR Physical Therapy Specialty [MeSH Terms] OR Physical Therapy Techniques [MeSH Terms] OR Rehabilitation [MeSH Terms]) Filters: in the last 10 years ("physical therapy modalities"[MeSH Terms] OR "physical therapy specialty"[MeSH Terms] OR "physical therapy modalities"[MeSH Terms] OR "rehabilitation"[MeSH Terms]) AND (y_10[Filter])	136,182
#3	Search: (Health Services for the Aged [MeSH Terms] OR Geriatric Health Services [MeSH Terms] OR Aged [MeSH Terms] OR Frail Elderly [MeSH Terms]) Filters: in the last 10 years ("health services for the aged"[MeSH Terms] OR "health services for the aged"[MeSH Terms] OR "aged"[MeSH Terms] OR "frail elderly"[MeSH Terms]) AND (y_10[Filter])	1,135,262
#4	Search: ((#1) AND (#2)) AND (#3) Filters: in the last 10 years	7

Pandemic:

Search number	Query	Results
4	((#1) AND (#2)) AND (#3)	602
3	(((((geriatric health services [MeSH Terms]) OR (health services geriatric [MeSH Terms])) OR (geriatric health care [MeSH Terms])) OR (geriatric health system [MeSH Terms])) OR (aged [MeSH Terms])) OR (frail elderly [MeSH Terms])) OR (frail elders [MeSH Terms])	3,536,165
2	((((physiotherapy specialty [MeSH Terms]) OR (physical therapy [MeSH Terms])) OR (therapy physical [MeSH Terms])) OR (rehabilitation [MeSH Terms])	375,344
1	(pandemic [MeSH Terms]) OR (covid 19 pandemic [MeSH Terms])	279,484

Appendix 2: Relevant content from national and international documents

Document	Author	Relevant content for older people
Building capacity in health-related rehabilitation services for health emergency responses ¹¹	World Health Organization (WHO)	<ul style="list-style-type: none"> To consider the needs of those with chronic conditions requiring ongoing medication, equipment and health status monitoring which are not considered in a trauma focused response. The dual role for rehabilitation in the health emergency response – both trauma and those with long term conditions. Older people are more vulnerable at a time of a disaster. There is no systematic or structured approach for rehabilitation services to contribute to health emergencies. Discharge planning has a key role to play in health emergency and disaster responses. Outreach into communities, evacuation centres and tent cities is recommended as not all people who require rehabilitation will present to hospital.
Strengthening health emergency prevention, preparedness, response and resilience ¹²	World Health Organization (WHO)	<ul style="list-style-type: none"> There is a need to plan and implement vaccination of vulnerable populations.
Strengthening rehabilitation in health emergency preparedness, readiness, response and resilience – Policy brief ¹³	World Health Organization (WHO)	<ul style="list-style-type: none"> Few countries systematically integrate rehabilitation into emergency preparedness. There is evidence to indicate that people with disability are disproportionately affected and have a range of health needs in emergencies.
Emergencies (World Rehabilitation Alliance Workstream) ¹⁴	World Health Organization (WHO)	<ul style="list-style-type: none"> The role of rehabilitation as an essential health service in emergencies is supported by a range of humanitarian guidelines and global conventions. There is low awareness amongst key stakeholders of the importance and role of rehabilitation in emergencies. The Joint Advocacy Statement by the World Rehabilitation Alliance urges that it is essential to ensure ongoing access to essential rehabilitation services for those with pre-existing needs. Emergency Medical Teams meeting WHO minimum standards should include rehabilitation professionals who have been mobilised in support of the national and international responses.
Emergency medical teams: minimum	World Health Organization (WHO)	<ul style="list-style-type: none"> The document gives the minimum standards for EMTs in regard to the workforce, the field hospital environment, rehabilitation equipment and consumables and information management.

<p>technical standards and recommendations for rehabilitation¹⁵</p>		<ul style="list-style-type: none"> • The standards call for at least one rehabilitation professional per 20 beds at the time of initial deployment, with further recruitment depending on caseload and local rehabilitation capacity. • Building local capacity is imperative to halt the perpetual cycle of disability and poverty seen in low- and middle-income countries in particular. • Rehabilitation professionals should have adequate training prior to deployment in emergency situations in how to practice and adapt their skills to austere environments as part of planning and quality assurance.
<p>Under one roof: Disability-inclusive shelter and settlements in emergencies¹⁶</p>	<p>International Federation of Red Cross and Red Crescent societies</p>	<ul style="list-style-type: none"> • The needs of older people should be considered in designing and building emergency shelters and settlements. • The document gives detailed recommendation for those building shelters and settlements after an emergency. • They suggest the Washington Group (WG) Short Set questions to identify data around functional limitations. <ol style="list-style-type: none"> 1. Do you have difficulty seeing, even if wearing glasses? 2. Do you have difficulty hearing, even if using a hearing aid? 3. Do you have difficulty walking or climbing steps? 4. Do you have difficulty remembering or concentrating? 5. Do you have difficulty with self-care such as washing all over or dressing? 6. Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?
<p>Handbook of disaster and emergency management¹⁷</p>	<p>Khorram-Manesh, A. et al (Editors)</p>	<ul style="list-style-type: none"> • Older people are more vulnerable to the outcomes of a disaster or major incident when they have lost family members who were caregivers. • To avoid a severe impact on this population, sufficient planning should be conducted to protect their lives and save the mental and physical costs that can incur. • Peer relationships are a valuable mechanism for facilitating cooling behaviours among older people during heat events. • Consider use of established community-based organisations to reach the older people they serve.
<p>Silver Book II Disaster medicine involving older people¹⁸</p>	<p>British Geriatric Society</p>	<ul style="list-style-type: none"> • In a disaster, frail older people experience a disproportionate number of deaths. • There are gaps in preparedness to accommodate people living with dementia during disasters. • All disaster triage schemes among those over age 65 are inaccurate and inadequate for assessing emergent intervention needs, especially in context of those with multiple active prescriptions. • Standard approaches to managing patients after large-scale mass casualty incidents using generic triage tools can actually cause harm in an older population. • Care home facilities are often not adequately prepared to maintain residents care while simultaneously confronting hazards.

		<ul style="list-style-type: none"> • Exposure to previous disasters is associated with enhanced resilience, perceived social capital, and optimism among older adults. • Advanced planning by families, diverse healthcare providers, and emergency responders will save lives and reduce suffering.
Role of physical therapists in disaster management ¹⁹	World Confederation for Physical Therapy	<ul style="list-style-type: none"> • Older people are more likely to be injured or killed during disasters. • Despite their potential increased vulnerability, older people may not be prioritised for services. • Mobility, sensory or communication problems or social isolation can mean difficulties in accessing health services.
Minimum standards for age and disability inclusion in humanitarian action ²⁰	Help Age International	<p>Inclusion standards: Across all sectors, people with disabilities and older people affected by crisis:</p> <ol style="list-style-type: none"> 1. Are recognised to ensure they receive assistance that is appropriate and relevant to their needs. 2. Have access to the humanitarian assistance they need. 3. Are not negatively affected, and are more prepared, resilient and less at-risk as a result of humanitarian action. 4. Know their rights and entitlements, have access to information, and participate in decisions that affect them on an equal basis with others. 5. Have access to safe and responsive mechanisms to handle complaints on an equal basis with others. 6. Receive and participate in coordinated and complementary assistance on an equal basis with others. 7. Can expect improved assistance and inclusion as organisations learn from experience and reflection. 8. Receive assistance from competent and well-managed staff and volunteers who are skilled and equipped to include them in humanitarian responses, and they have equal opportunities for employment and volunteering in humanitarian organisations. <p>Health standards: Health Standard 1: People with disabilities and older people, and their carers, affected by crisis are fully included in multisectoral and specific health assessments and in the design, implementation and monitoring of health programmes and services. Health Standard 2: Healthcare staff are trained and sensitised on disability and age and associated healthcare needs, and in how to respectfully communicate with people with disabilities and older people. Health Standard 3: People with disabilities and older people affected by crisis have access to comprehensive health services and health information. Health Standard 4: People affected by crisis, including people with disabilities and older people, have access to trauma/injury care during humanitarian crises to prevent avoidable morbidity, mortality and disability, and people with injuries or disabilities have access to rehabilitation services and assistive aids and devices to help reduce the disabling impacts of injuries or impairments. Health Standard 5: People with disabilities and older people have access to essential therapies to reduce morbidity and mortality due to chronic health conditions.</p>

		<p>Health Standard 6: Children with disabilities have full access to child health services.</p> <p>Health Standard 7: People with disabilities and older people have full access to sexual and reproductive health services.</p> <p>Health Standard 8: People with disabilities and older people have access to preventive, diagnostic and therapeutic health services for communicable diseases on an equal basis with others.</p> <p>Health Standard 9: People affected by crisis, including people with disabilities and older people, have access to mental health services that prevent or reduce emergency-related and pre-existing mental health conditions and associated impaired functioning.</p>
Rehabilitation in sudden onset disasters ²¹	Handicap International	<ul style="list-style-type: none"> • The role of responders includes preventative care for older people, people with chronic health conditions and those with disability, affected by the disaster. • The identification or assessment of people at increased risk, such as older people or those with disability. • If disabled or requiring assistance, register with local emergency response agencies to raise awareness of dependence. • The document covers rehabilitation for specific issues such as burns or amputation rather than populations such as older people.
Person-Centred Emergency Preparedness Workbook ²²	Centre for Disability Research and Policy	<ul style="list-style-type: none"> • A tool for personal preparation that individual older people can be guided towards. • The tool can be accessed from collaborating4inclusion.org/wp-content/uploads/2020/08/2020-08-19-Person-Centred-Emergency-Preparedness-P-CEP-WORKBOOK_FINAL.pdf
Older adult disaster preparedness recommendations ²³	American Red Cross/American Academy of Nursing	<p>Patient / care giver recommendations:</p> <ul style="list-style-type: none"> • If reliant on mobility aids, remove or minimise barriers to efficient evacuation. • If disabled or requiring assistance, register with local emergency response agencies to raise awareness of dependence. • If visual or hearing impairment, take additional precautions to prepare for disaster challenges or evacuation needs. • If living with chronic health condition, maintain a waterproof list of current diagnoses, medications, and durable medical equipment that includes emergency contacts, advanced directives, and substitute decision-makers. • Ensure access to 30-day supply of medications is immediately available. • If reliant upon medical devices requiring electricity, ensure back-up power supply available and charged. • Continually maintain a local support network to call upon during impending disaster, especially if living alone. • Caregivers of individuals with dementia should know how to identify signs of distress and how to calm the impaired individual. • Caregivers of individuals with dementia need to plan to monitor for wandering during disaster and have plan/resources to find those who wander away. <p>Community recommendations:</p>

		<ul style="list-style-type: none"> • Ensure access to programs that educate older adults and caregivers about region-appropriate disaster preparedness. • Essential services like Meals on Wheels, transportation, and home health should develop disaster response protocols and back-up systems. • Local government registries should be able to identify at-risk individuals so that emergency responders can prioritise search-and-rescue operations. <p>Health care recommendations:</p> <ul style="list-style-type: none"> • All clinicians should receive discipline-specific geriatric emergency response training for disasters. • Healthcare professionals should mitigate psychological distress among older persons during/after disasters by assessing psychological wellbeing during medical evaluation <p>Hospital / care home recommendations:</p> <ul style="list-style-type: none"> • Care institutions should incorporate disaster preparedness and response education into routine training via multi-modal tools. • Back-up strategies for the transfer of patient identification and medical information should be adopted into handoff procedures to facilitate tracking, relocation, and care during disasters.
The Disaster Preparedness Guide for older adults ²⁴	Federal Emergency Management Agency	<ul style="list-style-type: none"> • A guide and tool to help older people to prepare for a disaster. It covers assessing your needs, making a plan and engaging your support network. • It can be accessed from FEMA Disaster Preparedness Guide for Older Adults (ready.gov)
Rehabilitation in emergencies ²⁵	World Rehabilitation Alliance	<ul style="list-style-type: none"> • Rehabilitation is required from the onset of any health emergency response. • Rehabilitation services should be integrated into all health emergency risk management plans including preparedness, resilience, readiness, response and recovery planning. • Rehabilitation professionals should be included in health emergency training activities. • Despite increased demand and clear benefits for rehabilitation services in times of health emergencies, rehabilitation needs are often not considered early enough in health responses or are neglected altogether.

Appendix 3: Overview of other papers identified by informal means

Paper	Author	Relevant content for older people
Users of rehabilitation services in 14 countries and territories affected by conflict, 1988–2018 ²⁶	Barth et al	<ul style="list-style-type: none"> The consequences of weak health systems following a conflict are more far-reaching and complex than the effects of conflict-caused injury and physical impairment. 8.6% of people attending rehabilitation centres in conflict areas were older people (aged over 59).
Older people and disaster preparedness: a literature review ²⁷	Cornell et al	<ul style="list-style-type: none"> Most research is not age specific. Many older people live in the community, in their own homes and can contribute enormously to community resilience. Older people's years of experience can make them models of personal resilience and sources of inspiration and practical knowledge.
Older people as assets in disaster preparedness, response and recovery ²⁸	Howard et al	<ul style="list-style-type: none"> Older people were well supplied with resources which could be used in emergencies and very willing to share resources with neighbours. Past experience of a natural disaster was linked with better preparedness and planning for future disasters. Older people's role as generators and enactors of neighbourhood social capital goes unrecognised and is overlooked in planning strategies.
Community-Based Rehabilitation in Settings of Armed Conflict, Natural Disaster, or Mass Displacement: A Scoping Review ²⁹	Mohamed et al	<ul style="list-style-type: none"> In crisis settings persons with disabilities are at elevated risks of experiencing harm, including loss of assistive devices, barriers to mobility, inaccessibility of services. Community based rehabilitation (CBR) programmes in crisis setting can support people with long-standing disabilities, as well as persons who experience the onset of a new disability due to an injury or illness. Poor record-keeping can decrease the quality of epidemiological data needed to understand the impact of a disaster on the population. When considering the reintegration of individuals into their communities, many buildings were inaccessible to those with mobility aids or wheelchairs. There must be adequate organisational support for persons with disabilities within refugee camps. CBR makes important contributions on a global scale, as it works to address the needs of persons with disabilities in a holistic and participatory manner.
Rehabilitation of vulnerable groups in	Sheikhbardsiri et al	<ul style="list-style-type: none"> Only 24% of papers within the review were focussed on older people.

emergencies and disasters: A systematic review ³⁰		<ul style="list-style-type: none"> • The most important common strategy for vulnerable groups for physical rehabilitation include immediate and early implementation of physical rehabilitation immediately after the response stage and to continue these actions in the society after victim’s discharge from health centres.
Development and implementation of a rehabilitation triage algorithm for disasters in the subacute phase: an experience from the 2024 Noto peninsula earthquake ³¹	Shiota et al	<ul style="list-style-type: none"> • The authors developed a rehabilitation triage based on the ICF. • The triage algorithm categorized patients into four triage tags based on their ability to perform three basic activities of daily living. • The triage algorithm has three stages: assessments of sitting up, standing up from the floor or bed, and one-leg standing. • The classification then leads to identification of an appropriate level of support.
Physiotherapy management for COVID-19 in the acute hospital setting and beyond: an update to clinical practice recommendations ³²	Thomas et al	<ul style="list-style-type: none"> • The main areas covered are not older person specific and are not in the scope of this review; the paper aims to provide guidance for all adults with COVID-19 who need acute and follow up care. • The clinical practice recommendations include physiotherapy workforce planning and preparation recommendations, PPE recommendations, who to treat, recommendations for physiotherapy respiratory interventions, recommendations for physiotherapy mobilisation, exercise and rehabilitation interventions, and recommendations for recovery after COVID-19.

Appendix 4: Key points from papers identified following MeSH terms search

Disasters

Paper	Author	Key points
Preparedness for natural disasters among older US adults: a nationwide survey ³³	Al-rousan, T.M. et al	Increasing age, physical disability, and lower educational attainment and income were independently and significantly associated with worse overall preparedness.
Geriatric Disaster Preparedness. ³⁴	Bhalla, M.C. et al	Older people need to have a disaster plan in place. This needs to include plans to have access to medication or other medical supplies.
Associations Between Community Social Capital and Preservation of Functional Capacity in the Aftermath of a Major Disaster. ³⁵	Gero, K. et al	Community-level social participation was associated with a lower risk of functional decline after disaster exposure.
Six-year follow-up study of residential displacement and health outcomes following the 2011 Japan Earthquake and Tsunami. ³⁶	Hikichi, H. et al	There is variability and complexity in outcomes associated with long-term residential displacement.
Distance to retail stores and risk of being homebound among older adults in a city severely affected by the 2011 Great East Japan Earthquake. ³⁷	Hirai, H. et al	Consideration of the post-disaster-built environment is important for strategic community restoration.
Risk Factor for Incident Functional Disability and the Effect of a Preventive Exercise Program: A 4-Year Prospective Cohort Study of Older Survivors from the Great East Japan Earthquake and Nuclear Disaster. ³⁸	Kuroda, Y. et al	Exercise groups with both low-participation and high-participation rate in the exercise program had a significantly lower rate of incident functional disability compared to those who did not participate at all.
Type of Disaster Exposure Affects Functional Limitations of Older People 6 Years Later. ³⁹	Pruchno, R. et al	Reduction of exposure to traumatic stress during a disaster, such as evacuation from a storm area, may be important for older people.

Home-visit rehabilitation in a repopulated village after the Fukushima nuclear disaster ⁴⁰	Saito, Y. et al	Home visits are a viable means of rehabilitation following a disaster.
Predictors of decline in IADL functioning among older survivors following the Great East Japan earthquake: A prospective study. ⁴¹	Tsuboya, T. et al	Complete house loss and disruption of access to internal medicine after a disaster were associated with significant adverse impact on decline in physical and cognitive functions 2.5 years after the disaster, while loss of family/friends was not.
Reducing depressive symptoms after the Great East Japan Earthquake in older survivors through group exercise participation and regular walking: a prospective observational study. ⁴²	Tsuji, T. et al	Participation in group exercises or regular walking may mitigate the worsening of depressive symptoms among older survivors who have experienced natural disaster.
Relationships between social factors and physical activity among elderly survivors of the Great East Japan earthquake: a cross-sectional study. ⁴³	Yoshimura, E. et al	Displacement from an older person's home is linked to lower physical activity.

Conflicts

Paper	Author	Key points
Early-Life Exposure to War and Later-Life Physical Functional Health. ⁴⁴	Haas, S.A. and Ramirez, D.	The paper explores impacts of early childhood war exposure and the repercussions for later-life physical and functional health.

Pandemics

Due to the plethora of papers published during the COVID-19 pandemic there are multiple papers covering similar topics. Therefore, only those papers directly influencing the best practice statements have been listed.

Paper	Author	Key points
Deconditioning and physical activity		

Home-based exercise programmes improve physical fitness of healthy older adults: A PRISMA-compliant systematic review and meta-analysis with relevance for COVID-19. ⁴⁵	Chaabene, H. et al	In times of restricted physical activity due to pandemics, home-based exercises constitute an alternative to counteract physical inactivity and preserve/improve the health and fitness of healthy older adults aged 65-to-83 years.
The COVID-19 rehabilitation pandemic. ⁴⁶	DiBiase, S. et al	Rehabilitation will be needed for those who have become deconditioned as a result of movement restrictions, social isolation, and inability to access healthcare for pre-existing or new non-COVID-19 illnesses.
Decline in Mobility and Balance in Persons With Post-COVID-19 Condition. ⁴⁷	Feldman, D.E. et al	Many people with PCC experience changes in mobility and balance, which can affect functional capacities and lead to physical therapist consultations.
Do reductions of daily activities mediate the relationship between COVID-19 restrictions and mental ill-health among older persons in Europe? ⁴⁸	Fors Connolly, F. et al	The study highlights the essential role of maintaining daily activities, particularly walking, to mitigate the negative psychological effects of pandemic-related restrictions among older populations in Europe.
Comparative effectiveness study of low versus high-intensity aerobic training with resistance training in community-dwelling older men with post-COVID 19 sarcopenia: A randomized controlled trial. ⁴⁹	Nambi, G. et al	Low-intensity aerobic training exercises are more effective in improving the clinical and psychological measures than high-intensity aerobic training in post-COVID 19 Sarcopenia. *Caution with small sample size
Effect of community-based group exercises combined with action observation on physical and cognitive performance in older adults during the Covid-19 pandemic: A randomized controlled trial. ⁵⁰	Tekkus, B. & Mutluay, F.	Action observation therapy enhanced community-based exercises were effective in enhancing both physical and cognitive performance among older adults facing social isolation during the pandemic, with Group I (AOT + exercise) showing particularly promising results.
Hospital based care		
Recommendations and Effects of Rehabilitation Programs in Older Adults After Hospitalization for COVID-19: A Scoping Review. ⁵¹	Araya-Quintanilla, F. et al	Multidisciplinary rehabilitation programs are necessary for older adults after hospitalization for COVID-19, especially those coming from intensive care units, as rehabilitation has a positive effect on important clinical outcomes.

COVID 19: prioritise autonomy, beneficence and conversations before score-based triage. ⁵²	Ho, E.P. & Neo, H. Y.	Before applying score-based triage, physicians must first discern if older people will benefit from critical care (beneficence) and second, if he wants critical care (autonomy). When deliberating beneficence, physicians should steer away from solely using age-stratified survival probabilities from epidemiological data.
Frequency of Physical Therapist Intervention Is Associated With Mobility Status and Disposition at Hospital Discharge for Patients With COVID-19. ⁵³	Johnson, J.K. et al	Patients with COVID-19 can benefit from more frequent and longer physical therapy visits in the hospital.
Clinical frailty scale is useful in predicting return-to-home in patients admitted due to coronavirus disease. ⁵⁴	Kawamura, K. et al	Based on the evaluation of the degree of frailty conducted in the COVID-19 treatment unit, it was possible to accurately predict whether a patient could be discharged directly to home after treatment. CFS could be an effective screening tool to easily detect patients requiring ongoing hospitalisation even after the acute phase of treatment.
Multidisciplinary inpatient rehabilitation for older adults with COVID-19: a systematic review and meta-analysis of clinical and process outcomes. ⁵⁵	McCarthy, A. et al	Multidisciplinary rehabilitation may result in improved functional outcomes on discharge from rehabilitation units/centres for older adults with COVID-19.
Post-COVID-19 patients in geriatric rehabilitation substantially recover in daily functioning and quality of life. ⁵⁶	van Tol LS	Frailty at rehabilitation admission was not associated with recovery and should not be a reason to exclude patients from rehabilitation.
Technology enhanced rehabilitation		
Application of Telerehabilitation for Older Adults During the COVID-19 Pandemic: A Systematic Review. ⁵⁷	Ahmadi Marzaleh, M. et al	Using a digital strategy for rehabilitation should be regarded as a means of overcoming the field's obstacles. As a result, legislators and rehabilitation groups should consider the use of telerehabilitation for the elderly population during the COVID-19 pandemic.
Navigating a New Normal: Perceptions and Experiences of an Online Exercise Program for Older Adults During COVID-19. ⁵⁸	Galway, S.C. et al	Most participants who took part were able to overcome initial barriers through technical support and experience.
Effect of a video-assisted fall prevention program on fall incidence in community-dwelling older adults during COVID. ⁵⁹	Kulkarni, S. & Nagarkar, A.	The video-assisted exercise program was found to be effective in reducing fall incidence among older adults at a higher risk of falls.
Map the apps: a rapid review of digital approaches to support the engagement of older adults in strength and balance exercises ⁶⁰	McGarrigle, L. et al	Apps and websites have the potential to provide a convenient, cost-effective, and accessible means for many older adults to engage in strength and balance training and reduce falls risk.

Dealing with side effects and symptoms		
Association Between COVID-19 and Activities of Daily Living in Older Adults. ⁶¹	Bae, S. et al	There was a significant association between a positive COVID-19 result and decreased independence with ADL COVID-19 survivors have residual functional deficits and would need comprehensive health care services.
Rehabilitation of Post-COVID-19 Musculoskeletal Sequelae in Geriatric Patients: A Case Series Study. ⁶²	Cevei. M. et al	The musculoskeletal system is affected in over 40% of patients with Coronavirus disease 2019 (COVID-19). Early complex medical rehabilitation improved functional independence and autonomy in ADLs in very old patients, post-COVID-19.
Psychological and Functional Impact of COVID-19 in Long-Term Care Facilities: The COVID-A Study. ⁶³	Cortés Zamora, E.B. et al	COVID-19 pandemic was associated, after three-months, with high psychological impact in older adults in LTCFs., specifically with higher post-traumatic stress and anxiety symptoms.
Identification of Depression Among Elderly During COVID-19. ⁶⁴	Kurniawidjaja, M. et al	In the presence of depression, control measures for social, health, and psychosocial support must be implemented in order to minimise its impact among older people.
Cognitive impairment and functional change in COVID-19 patients undergoing inpatient rehabilitation. ⁶⁵	Patel, R. et al	Cognitive impairment is frequent among COVID-19 patients but improves over time and is associated with functional gain during inpatient rehabilitation.
Approach to COVID-19 in older adults and indications for improving the outcomes. ⁶⁶	Tana, C. et al	Persistent symptoms are an emerging problem of the post-vaccination phase of pandemic, as most patients suffer from chronic symptoms which can become debilitating and affect the daily routine.
Frail Older Adults with Presymptomatic SARS-CoV-2 Infection: Clinical Course and Prognosis. ⁶⁷	Levy, Y. et al	Age is a predominant prognostic risk factor, even in the frailest older adults.
Exploring Distress and Occupational Participation Among Older Canadians During the COVID-19 Pandemic. ⁶⁸	Vesnaver, E. et al	Many older adults, including those with high distress, were able to manage daily life under lockdown, however some experienced ongoing challenges in doing so.
Falls		
Increased anxiety about falls and walking ability among community-dwelling Japanese older adults during the COVID-19 pandemic. ⁶⁹	Nakamura, M. et al	Older adults showed almost no changes in body pain and locomotive disabilities but increases in their anxieties about walking ability and falling were remarkable.

Falls Among Older Adults During the COVID-19 Pandemic: A Multicenter Cross-Sectional Study in Vietnam. ⁷⁰	Nguyen, H.T. et al	Our study found a substantial prevalence of falls among older outpatients during the COVID-19 pandemic.
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References

- ¹ World Confederation for Physical Therapy. 2016. *WCPT report: The role of physical therapists in disaster management*. WCPT, London. Accessed from: <https://world.physio/sites/default/files/2020-06/Disaster-Management-Report-201603.pdf>
- ² Sinha, S. K., Spurlock, W.R. et al. 2019. *Closing the Gaps: Advancing Disaster Preparedness, Response, and Recovery for Older Adults*. American Red Cross/American Academy of Nursing.
- ³ Age and Disability Capacity Building Programme. 2015. *Minimum standards for age and disability inclusion in humanitarian action*. Help Age International, London. Accessed from: <https://www.helpage.org/silo/files/minimum-standards-for-age-and-disability-inclusion-in-humanitarian-action.pdf>
- ⁴ Kwong, J. S., Chen, H. & Sun, X. 2016. Development of Evidence-based Recommendations: Implications for Preparing Expert Consensus Statements. *Chin Med J (Engl)*. Dec 20;129(24):2998-3000. DOI: 10.4103/0366-6999.
- ⁵ Morita, T., Nomura, S. et al. 2017. Excess mortality due to indirect health effects of the 2011 triple disaster in Fukushima, Japan: a retrospective observational study. *J Epidemiol Community Health*. 71:974–980.
- ⁶ The International Association for Physiotherapists working with Older People (IPTOP). 2021 *IPTOP resources for exercise and physical activity*. Accessed from: https://docs.google.com/document/d/1BFyj8_H3J2mtJndlgkszzsunDvoc2zdp/edit?usp=drive_link&oid=104082994601122858938&rtpof=true&sd=true
- ⁷ Koninkrijk Nederlands Genootschap voor Fysiotherapie. 2023. *Remote care*. Accessed from: [General information - KNGF Knowledge Platform Physiotherapy](#)
- ⁸ The International Association for Physiotherapists working with Older People (IPTOP). 2021. *Standards of Clinical Practice: Revised Edition*.
- ⁹ World Physiotherapy. 2021. *Physiotherapist education framework*. World Physiotherapy, London.
- ¹⁰ Endo, M., Ozaki, A. et al. 2024. Challenges and Implications of Providing Continuous Care for the Elderly in Disaster Situations: A Case Study from the Noto Peninsula Earthquake. *Disaster Medicine and Public Health Preparedness*. 18, e307: 1–2. DOI: <https://doi.org/10.1017/dmp.2024.161>
- ¹¹ World Health Organization Collaborating Centre in Health Workforce Development in Rehabilitation and Long-Term Care. 2018. *Building capacity in health-related rehabilitation services for health emergency responses*. WHO, Geneva.
- ¹² World Health Organization. 2023. *Strengthening health emergency prevention, preparedness, response and resilience*. World Health Organization, Geneva Accessed from: https://cdn.who.int/media/docs/default-source/emergency-preparedness/who_hepr_wha2023-21051248b.pdf?sfvrsn=a82abdf4_3&download=true
- ¹³ World Health Organization. 2023. *Strengthening health emergency prevention, preparedness, response and resilience – Policy brief*. World Health Organization, Geneva. Accessed from: <https://iris.who.int/bitstream/handle/10665/370571/9789240073432-eng.pdf?sequence=1>
- ¹⁴ World Health Organization. 2024. *Emergencies*. World Health Organization, Geneva. Accessed from: <https://www.who.int/initiatives/world-rehabilitation-alliance/emergencies>.
- ¹⁵ World Health Organization. 2016. *Emergency medical teams: minimum technical standards and recommendations for rehabilitation*. World Health Organization, Geneva.
- ¹⁶ International Federation of Red Cross and Red Crescent Societies. 2015. *All under one roof: Disability-inclusive shelter and settlements in emergencies*. International Federation of Red Cross and Red Crescent Societies, Geneva. Accessed from: [All Under One Roof: Disability-inclusive shelter and settlements in emergencies - World | ReliefWeb](#)
- ¹⁷ Khorram-Manesh, A., Goniewicz, K., Hertelendy, A. and Dulebenets, M. (Eds). 2021. *Handbook of Disaster and Emergency Management: New Era, New Challenges*. Zenodo. Accessed from: [Handbook of Disaster and Emergency Management \(zenodo.org\)](#)
- ¹⁸ British Geriatric Society. 2021. *Silver Book II. Quality care for older people with urgent care needs. Chapter: Disaster medicine involving older people*. British Geriatrics Society, London

-
- ¹⁹ World Confederation for Physical Therapy. 2016. *WCPT report: The role of physical therapists in disaster management*. WCPT, London Accessed from: <https://world.physio/sites/default/files/2020-06/Disaster-Management-Report-201603.pdf>
- ²⁰ Age and Disability Capacity Building Programme. 2015. *Minimum standards for age and disability inclusion in humanitarian action*. Help Age International, London. Accessed from: <https://www.helpage.org/silo/files/minimum-standards-for-age-and-disability-inclusion-in-humanitarian-action.pdf>
- ²¹ Harvey, A. & Skelton, P. (Ed) 2015. *Rehabilitation in sudden onset disasters*. Handicap International/ UK Emergency Medical Team, London. Accessed from: www.bond.org.uk/resources/rehabilitation-in-sudden-onset-disasters
- ²² Villeneuve, M., Abson, L., Yen, I., & Moss, M. 2020. *Person-Centred Emergency Preparedness (P-CEP) Workbook*. Centre for Disability Research and Policy, The University of Sydney
- ²³ Sinha, S. K., Spurlock, W.R., Gibson, A. et al. 2019. *Closing the Gaps: Advancing Disaster Preparedness, Response, and Recovery for Older Adults*. American Red Cross/American Academy of Nursing.
- ²⁴ Federal Emergency Management Agency. 2023. *Disaster Preparedness Guide for Older Adults* Accessed from: [FEMA Disaster Preparedness Guide for Older Adults \(ready.gov\)](https://www.fema.gov/disaster-preparedness-guide-for-older-adults)
- ²⁵ World Rehabilitation Alliance. 2024. *Rehabilitation in Emergencies factsheet*. Accessed from: [Rehabilitation in emergencies factsheet \(who.int\)](https://www.who.int/publications/m/item/rehabilitation-in-emergencies-factsheet)
- ²⁶ Barth, C.A., Wladis, A., Blake, C., Bhandarkar, P. & O’Sullivan, C. 2020. Users of rehabilitation services in 14 countries and territories affected by conflict, 1988–2018, *Bulletin of the World Health Organization*, 98(9) pp 599-614 DOI: <https://doi.org/10.2471/blt.19.249060>
- ²⁷ Cornell, V.J., Cusack, L. & Arbon, P. 2012. Older people and disaster preparedness: a literature review *The Australian Journal of Emergency Management* Volume 27, No. 3. Accessed from <https://www.humanitarianlibrary.org/sites/default/files/2019/09/45.pdf>
- ²⁸ Howard, A., Blakemore, T. & Bevis, M. 2017. Older people as assets in disaster preparedness, response and recovery: lessons from regional Australia, *Ageing and Society*, 37(3), pp. 517–536 [https://DOI.org/10.1017/S0144686X15001270](https://doi.org/10.1017/S0144686X15001270)
- ²⁹ Mohamed, A., Virdi, M. K. et al. 2022. Community-Based Rehabilitation in Settings of Armed Conflict, Natural Disaster, or Mass Displacement: A Scoping Review. *Disability, CBR and Inclusive Development*. 33 (4). Available from: <https://dcidj.uog.edu.et/index.php/up-j-dcbriid/article/view/627>
- ³⁰ Sheikhbardsiri, H., Yarmohammadian, M., Rezaei, F. & Maracy, R. 2017. Rehabilitation of vulnerable groups in emergencies and disasters: A systematic review. *World Journal of Emergency Medicine*. 8(4):253-263. Accessed from: <https://europepmc.org/article/MED/29123602>
- ³¹ Shigehito, S., Naoya, O. et al. 2024. Development and implementation of a rehabilitation triage algorithm for disasters in the subacute phase: an experience from the 2024 Noto peninsula earthquake. *Frontiers in Disaster and Emergency Medicine*. Vol. 2. DOI:10.3389/femer.2024.1387704
- ³² Thomas, P., Baldwin, C. et al. 2022. Physiotherapy management for COVID-19 in the acute hospital setting and beyond: an update to clinical practice recommendations. *Journal of Physiotherapy* 68:8–25
- ³³ Al-rousan, T.M., Rubenstein, L.M. & Wallace, R. 2015. Preparedness for Natural Disasters Among Older US Adults: A Nationwide Survey, *American Journal of Public Health* 105 (S4) pp. S621-S626.
- ³⁴ Bhalla, M.C., Burgess, A., Frey, J. & Hardy, W. 2015. Geriatric Disaster Preparedness. *Prehosp Disaster Med*. Oct;30(5):443-6. DOI: 10.1017/S1049023X15005075.
- ³⁵ Gero, K., Hikichi, H., Aida, J., Kondo, K. & Kawachi, I. 2020. Associations Between Community Social Capital and Preservation of Functional Capacity in the Aftermath of a Major Disaster. *American Journal of Epidemiology*, 189 (11) pp 1369–1378, [https://DOI.org/10.1093/aje/kwaa085](https://doi.org/10.1093/aje/kwaa085)
- ³⁶ Hikichi, H., Aida, J., Kondo, K. & Kawachi, I. 2021. Six-year follow-up study of residential displacement and health outcomes following the 2011 Japan Earthquake and Tsunami. *PNAS*. 118 (2) e2014226118 [https://DOI.org/10.1073/pnas.2014226118](https://doi.org/10.1073/pnas.2014226118)
- ³⁷ Hirai, H., Kondo, N. et al. 2015. Distance to retail stores and risk of being homebound among older adults in a city severely affected by the 2011 Great East Japan Earthquake. *Age Ageing*. 44(3) pp 478-84. DOI: 10.1093/ageing/afu146.
- ³⁸ Kuroda, Y, Iwasa, H. et al. 2018. Risk Factor for Incident Functional Disability and the Effect of a Preventive Exercise Program: A 4-Year Prospective Cohort Study of Older Survivors from the Great East Japan Earthquake and Nuclear Disaster. *International Journal of Environmental Research and Public Health*. 15(7) pp1430. DOI: ijerph15071430

-
- ³⁹ Pruchno, R., Wilson-Genderson, M., Heid, A.R. & Cartwright, F. P. 2020. Type of Disaster Exposure Affects Functional Limitations of Older People 6 Years Later, *The Journals of Gerontology: Series A*, 75 (11) pp.2139-2146, <https://DOI.org/10.1093/gerona/glz258>
- ⁴⁰ Saito, Y., Sato, K. et al. 2022. Home-visit rehabilitation in a repopulated village after the Fukushima nuclear disaster. *Fukushima J Med Sci*. 68(2) pp.71-77. DOI: 10.5387/fms.2021-30
- ⁴¹ Tsuboya, T., Aida, J. et al. 2017. Predictors of decline in IADL functioning among older survivors following the Great East Japan earthquake: A prospective study. *Soc Sci Med*. 176 pp.34-41. DOI: 10.1016/j.socscimed.2017.01.022
- ⁴² Tsuji, T., Sasaki, Y. et al. 2017. Reducing depressive symptoms after the Great East Japan Earthquake in older survivors through group exercise participation and regular walking: a prospective observational study. *BMJ Open*.7(3) DOI: 10.1136/bmjopen-2016-013706.
- ⁴³ Yoshimura, E., Ishikawa-Takata, K. et al. 2016. Relationships between social factors and physical activity among elderly survivors of the Great East Japan earthquake: a cross-sectional study. *BMC Geriatrics*. 16 (30). DOI: 10.1186/s12877-016-0203-8.
- ⁴⁴ Haas, S, A. & Ramirez, D. 2024. Early-Life Exposure to War and Later-Life Physical Functional Health. *J Gerontol B Psychol Sci Soc Sci*. 79(6) DOI: 10.1093/geronb/gbae029.
- ⁴⁵ Chaabene, H., Prieske, O. et al. 2021. Home-based exercise programmes improve physical fitness of healthy older adults: A PRISMA-compliant systematic review and meta-analysis with relevance for COVID-19. *Ageing Res Rev*. 67:101265. DOI: 10.1016/j.arr.2021.101265.
- ⁴⁶ De Biase, S., Cook, L., Skelton, D.A., Witham, M. & Ten Hove, R. 2020. The COVID-19 rehabilitation pandemic. *Age Ageing*. 49(5) pp.696-700. DOI: 10.1093/ageing/afaa118.
- ⁴⁷ Feldman, D.E., Guillemette, A., Sanzari, J., Youkheang, S. & Mazer, B. 2024. Decline in Mobility and Balance in Persons With Post-COVID-19 Condition. *Phys Ther*. 104(6) DOI: 10.1093/ptj/pzae042.
- ⁴⁸ Fors Connolly, F., Olofsson, J.& Josefsson, M. 2024. Do reductions of daily activities mediate the relationship between COVID-19 restrictions and mental ill-health among older persons in Europe? *Ageing Ment Health*. 28(7) pp.1058-1065. DOI: 10.1080/13607863.2024.2313726.
- ⁴⁹ Nambi, G., Abdelbasset, W. K. et al. 2022. Comparative effectiveness study of low versus high-intensity aerobic training with resistance training in community-dwelling older men with post-COVID 19 sarcopenia: A randomized controlled trial. *Clin Rehabil*. 36(1) pp. 59-68. DOI:10.1177/02692155211036956.
- ⁵⁰ Tekkus, B. & Mutluay, F. 2023. Effect of community-based group exercises combined with action observation on physical and cognitive performance in older adults during the Covid-19 pandemic: A randomized controlled trial. *PLoS One*. 18(12) pp. e0295057. DOI: 10.1371/journal.pone.0295057.
- ⁵¹ Araya-Quintanilla, F, Sepulveda-Loyola, W. et al. 2023. Recommendations and Effects of Rehabilitation Programs in Older Adults After Hospitalization for COVID-19: A Scoping Review. *Am J Phys Med Rehabil*. 102(7) pp. 653-659. DOI: 10.1097/PHM.0000000000002183.
- ⁵² Ho, E.P.& Neo, H.Y. 2021. COVID 19: prioritise autonomy, beneficence and conversations before score-based triage. *Age Ageing*. 50(1) pp.11-15. DOI: 10.1093/ageing/afaa205.
- ⁵³ Johnson, J.K., Lapin, B., Green, K. & Stilphen, M. 2021. Frequency of Physical Therapist Intervention Is Associated With Mobility Status and Disposition at Hospital Discharge for Patients With COVID-19. *Phys Ther*. 101(1) DOI: 10.1093/ptj/pzaa181.
- ⁵⁴ Kawamura, K., Osawa, A., Tanimoto, M. et al. 2023. Clinical frailty scale is useful in predicting return-to-home in patients admitted due to coronavirus disease. *BMC Geriatr*. 23, 433 <https://DOI.org/10.1186/s12877-023-04133-4>
- ⁵⁵ McCarthy, A., Galvin, R. et al. 2023. Multidisciplinary inpatient rehabilitation for older adults with COVID-19: a systematic review and meta-analysis of clinical and process outcomes. *BMC Geriatr*. 23(1) DOI: 10.1186/s12877-023-04098-4.
- ⁵⁶ van Tol, L.S., Haaksma, M.L., Cesari, M., Dockery, F., Everink, I. H. J, Francis, B.N., Gordon, A. L., Grund, S., Matchekhina, L., Bazan, L. M. P. et al. 2024. EU-COGER consortium. Post-COVID-19 patients in geriatric rehabilitation substantially recover in daily functioning and quality of life. *Age Ageing*. 53(5) DOI: 10.1093/ageing/afae084.
- ⁵⁷ Ahmadi Marzaleh, M, Peyravi, M. et al. 2022. Application of Telerehabilitation for Older Adults During the COVID-19 Pandemic: A Systematic Review. *Disaster Med Public Health Prep*. 17 pp. e402. DOI: 10.1017/dmp.2022.219.
- ⁵⁸ Galway, S. C., Laird, M. H. D., Dagenais, M. & Gammage, K. L. 2023. Navigating a New Normal: Perceptions and Experiences of an Online Exercise Program for Older Adults During COVID-19. *J Aging Phys Act*. 31(5) pp.743-755. DOI: 10.1123/japa.2022-0118.

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- ⁵⁹ Kulkarni, S. & Nagarkar, A. 2022. Effect of a video-assisted fall prevention program on fall incidence in community-dwelling older adults during COVID. *Geriatr Nurs.* 50 pp.31-37. DOI: 10.1016/j.gerinurse.2022.12.022.
- ⁶⁰ McGarrigle, L., Boulton, E. & Todd, C. 2020. Map the apps: a rapid review of digital approaches to support the engagement of older adults in strength and balance exercises. *BMC Geriatrics.* 20, 483. <https://DOI.org/10.1186/s12877-020-01880-6>
- ⁶¹ Bae, S., Malcolm, M. P., Nam, S. & Hong, I. 2023. Association Between COVID-19 and Activities of Daily Living in Older Adults. *Occupational Therapy Journal of Research.* 43(2) pp. 202-210. DOI:10.1177/15394492221134911
- ⁶² Cevei, M., Onofrei, R. R. et al. 2022. Rehabilitation of Post-COVID-19 Musculoskeletal Sequelae in Geriatric Patients: A Case Series Study. *International Journal of Environmental Research and Public Health.* 19(22) pp.15350 DOI: 10.3390/ijerph192215350
- ⁶³ Cortés Zamora, E.B., Mas Romero, M. et al. 2022. Psychological and Functional Impact of COVID-19 in Long-Term Care Facilities: The COVID-A Study. *Am J Geriatric Psychiatry.* 30(4) pp.431-443. DOI: 10.1016/j.jagp.2022.01.007.
- ⁶⁴ Kurniawidjaja, M., Susilowati, I.H. et al. 2022. Identification of Depression Among Elderly During COVID-19. *J Prim Care Community Health.* 13. DOI: 10.1177/21501319221085380.
- ⁶⁵ Patel, R., Savrides, I. et al. 2021. Cognitive impairment and functional change in COVID-19 patients undergoing inpatient rehabilitation. *Int J Rehabil Res.* 44(3) pp.285-288. DOI: 10.1097/MRR.0000000000000483.
- ⁶⁶ Tana, C., Moffa, L. et al. 2023. Approach to COVID-19 in older adults and indications for improving the outcomes. *Ann Med.* 55(2) DOI: 10.1080/07853890.2023.2265298.
- ⁶⁷ Levy, Y., Turjeman, A. et al. 2022. Frail Older Adults with Presymptomatic SARS-CoV-2 Infection: Clinical Course and Prognosis. *Gerontology.* 68(12) pp.1393-1401. DOI: 10.1159/000521412.
- ⁶⁸ Vesnaver, E., Dietrich, N. et al. 2023. Exploring Distress and Occupational Participation Among Older Canadians During the COVID-19 Pandemic. *Can J Occup Ther.* 90(2) pp.173-184. DOI: 10.1177/00084174231165832.
- ⁶⁹ Nakamura, M., Imaoka, M. et al. 2021. Increased anxiety about falls and walking ability among community-dwelling Japanese older adults during the COVID-19 pandemic. *Psychogeriatrics.* 21(5) pp. 826-831. DOI: 10.1111/psyg.12750.
- ⁷⁰ Nguyen, H.T., Nguyen, C. C. & Le Hoang, T. 2022. Falls Among Older Adults During the COVID-19 Pandemic: A Multicenter Cross-Sectional Study in Vietnam. *Clin Interv Aging.* 17 pp.1393-1404. DOI: 10.2147/CIA.S382649.

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