

Enduring, Performance-oriented Partnerships

Longest, a leading manufacturer in physiotherapy and rehabilitation, provides healthcare professionals and consumers with non-invasive solutions to various health problems to prevent unnecessary invasive procedures.

Our wide portfolio of performance-center solutions support health systems to better manage the growing rehabilitation needs, speed up workflows, reduce costs, and improve patient outcomes.

Together, we improve the lives of patients and their families.

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Centering Around Musculoskeletal Health

Together, we can support people to live with good lifelong MSK health.

Health Life · Longest Care

Musculoskeletal (MSK) Conditions

MSK conditions are a global public health concern. Approximately 1.71 billion people have musculoskeletal conditions worldwide, including low back pain, neck pain, fractures, other injuries, osteoarthritis, amputation, and rheumatoid arthritis. In some cases, living with MSK conditions can have consequences for the life chances of an individual through the loss of work, and dependence on the state, family, and friends.

As the world's population is aging, the rehabilitation needs for MSK conditions will further increase in the years to come, which is a considerable challenge for the health system to cope with. Longest, as a fast-growing company in physiotherapy and rehabilitation, provides a wide array of technologies that support healthcare departments towards best-in-class patient care and operational excellence. We are committed to creating a better environment of physiotherapy & rehabilitation for all and making affordable physio & rehab services reach everyone.

Q&A

Do musculoskeletal conditions only occur in adults?

No. While the prevalence of musculoskeletal conditions increases with age, children and adolescents are also affected. Musculoskeletal conditions are relevant across the life-course – from childhood to older age. Many chronic conditions that begin in childhood continue into adult life.



What are musculoskeletal conditions? Key facts about MSK conditions

Musculoskeletal conditions are injuries of the muscles, nerves, tendons, joints, cartilage, and spinal discs, which can lead to temporary or lifelong limitations in functioning and participation. The conditions are typically characterized by pain and limitations in mobility and dexterity, reducing people's productivity and quality of life.

- Approximately 1.71 billion people have musculoskeletal conditions worldwide.
- Musculoskeletal conditions are the leading cause of disability worldwide.
- High-income countries are the most affected, about 441 million people.
- About 2/3 of all adults in need of rehabilitation are due to musculoskeletal conditions.
- Musculoskeletal conditions are relevant across the life-course – from childhood to older age.
- Musculoskeletal conditions often increase the risk of developing other diseases, such as cardiovascular disease.
- Musculoskeletal conditions not only affect physical health, but also affect emotion and mind.



Common MSK Conditions

- Tendonitis
- Tenosynovitis
- Epicondylitis (Tennis/Golfers' Elbow)
- Bursitis
- Carpal/Cubital Tunnel Syndrome
- Trigger Finger
- Ruptured or Herniated Disc
- Thoracic Outlet Syndrome

Risk Factors

There are many risk factors for the development of MSK conditions that everyone shall be paid more attention to. If you are exposed to these risks, early detection and intervention can help manage MSK health

Force. The risk of musculoskeletal injury increases if the amount of force required to perform the job exceeds the worker's physical capacity, such as heavy lifting, heavy load carry, etc.

Poor postures. Postures directly affect musculoskeletal health. During movements that involve lifting, bending, reaching, or carrying an object, poor postures can cause imbalances, and place great stress on the muscles and spine, which could increase the risk of injury.

Repetition. Repetitive movement can cause discomfort, pain, and temporary or permanent damage to the soft tissues in the body.

Obesity. Excess weight puts added stress on joints, especially knees, causing pain and injury. "Being just 10 pounds overweight increases the force on your knees by 30 to 40 pounds with every step you take," says Kevin Fontaine, Ph.D, assistant professor of rheumatology at Johns Hopkins University.

Smoking. Smoking is associated with low bone mineral density (BMD), putting your musculoskeletal system at risk of injuries such as rotator cuff tears, bursitis, tendonitis, sprains, fractures.

Age. After age 30, people begin to lose as much as 3% to 5% of their muscle mass each decade, the joint become less resilient and the density of bones begins to diminish, making people more susceptible to falls and injury.

Longest Solutions for MSK Conditions Rehabilitation

Early intervention and management of musculoskeletal conditions are crucial to control the symptoms and prevent them from getting worse. Longest provides simple-to-perform and cost-efficient treatments to address many musculoskeletal conditions and better care for people's health.

- Approved Rehabilitative Treatment
- Non-invasive treatment
- Reduced needs for surgery
- No Downtime
- Lower Cost
- Minimized Side Effects





Tackle the Gnawing Musculoskeletal Pain

Musculoskeletal pain affects between 13.5% and 47% of the general population. It is debilitating, interfering with the ability to sleep, work and enjoy life. And it has become more evident that musculoskeletal pain is a major cause of disability. What’s worse, it can not only aggravate other health conditions but also lead to mental problems, such as depression and anxiety.

How to relieve pain effectively? Pain can take many forms. There’s not a one-size fits all approach. Pain medication is widely used, but the side effects such as addiction are still worrying. Surgical intervention can repair specific problems, but the cost is high and require care and recovery after the operation.

Restore Mobility, Maintain Quality of Life

Musculoskeletal conditions are the biggest contributor to years lived with disability (YLDs) worldwide with approximately 149 million YLDs, accounting for 17% of all YLDs worldwide.

Mobility plays a fundamental role in quality of life. It enables people to carry out normal daily activities, live independently, actively and with dignity. And the human body thrives on movement. Prolonged immobility can lead to serious health problems that require complex care, such as cardiovascular disease.

Promote Healing of Musculoskeletal Injuries

Musculoskeletal injuries have a devastating impact on people’s lives and livelihoods. The injuries cause pain and movement difficulties. People in pain often lose the ability to concentrate and have sleeping problem, resulting in decreases in quality and productivity at study and work. And the limited mobility can interfere with daily activities and social life. It may become difficult to prepare meals, maintain a clean home, go out with family, and enjoy hobbies. The physical limitations can also lead to emotional stress and loss of confidence and independence.

Extracorporeal Shockwave Therapy (ESWT)

Extracorporeal shockwave therapy is increasingly used to treat a number of musculoskeletal conditions including plantar fasciitis, lateral epicondylitis of the elbow, calcific tendinopathies of the shoulder, and non-union of long bone fractures.

The therapy uses very intense, short-lived mechanical pulses that transmit as high-energy pressure waves into the targeted painful spots. The energy not only has a direct effect on local nerve endings resulting in a decrease in pain but also stimulates the body’s natural healing process, fixing the root cause of pain straightforwardly.



Intermittent Pneumatic Compression (IPC) Therapy

Compression therapy offers a number of benefits. The most common use is relieving pain caused by arthritis, tendinitis, plantar fasciitis, fibromyalgia, overuse, and vein and lymphatic problems.

The therapy uses inflatable sleeves that apply pressure to the legs, hips, or arms to enhance blood flow and lymphatic drainage and reduce the swelling and inflammation in the treated area, which can be helpful for aches and pain.

Besides, the increased circulation can reduce stiffness, tension, and soreness of muscles, increase range of motion, clear toxins and wastes from the body, boost metabolism, and bring oxygen-rich blood and nutrients to the injured areas to speed up the healing process.



Eletrotherapy

Transcutaneous Electrical Stimulation (TENS) relieves pain by delivering electrical pulses through electrodes placed around the painful areas.

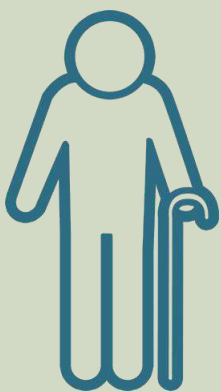
- It works by:
- Block the transmission of pain signals to the spinal cord and brain
 - Stimulate the release of endorphin
 - Boost blood circulation

A TENS unit is usually small, portable, and low-cost. You can use it to manage pain easily anytime, anywhere.



Designing to Achieve

Health is the foundation of a happy life. To achieve wider health coverage, efficient health systems are essential. At the core of our research and development over the years is delivering high-quality rehabilitation equipment that helps health systems to achieve the operational excellence in rehabilitation to maximise benefits to people with musculoskeletal conditions, improve quality of care and outcomes, and deliver the best value for money.



Independent and healthy old age



Energetic youth



Prolonged & successful athletic career



Comfort & Relaxation

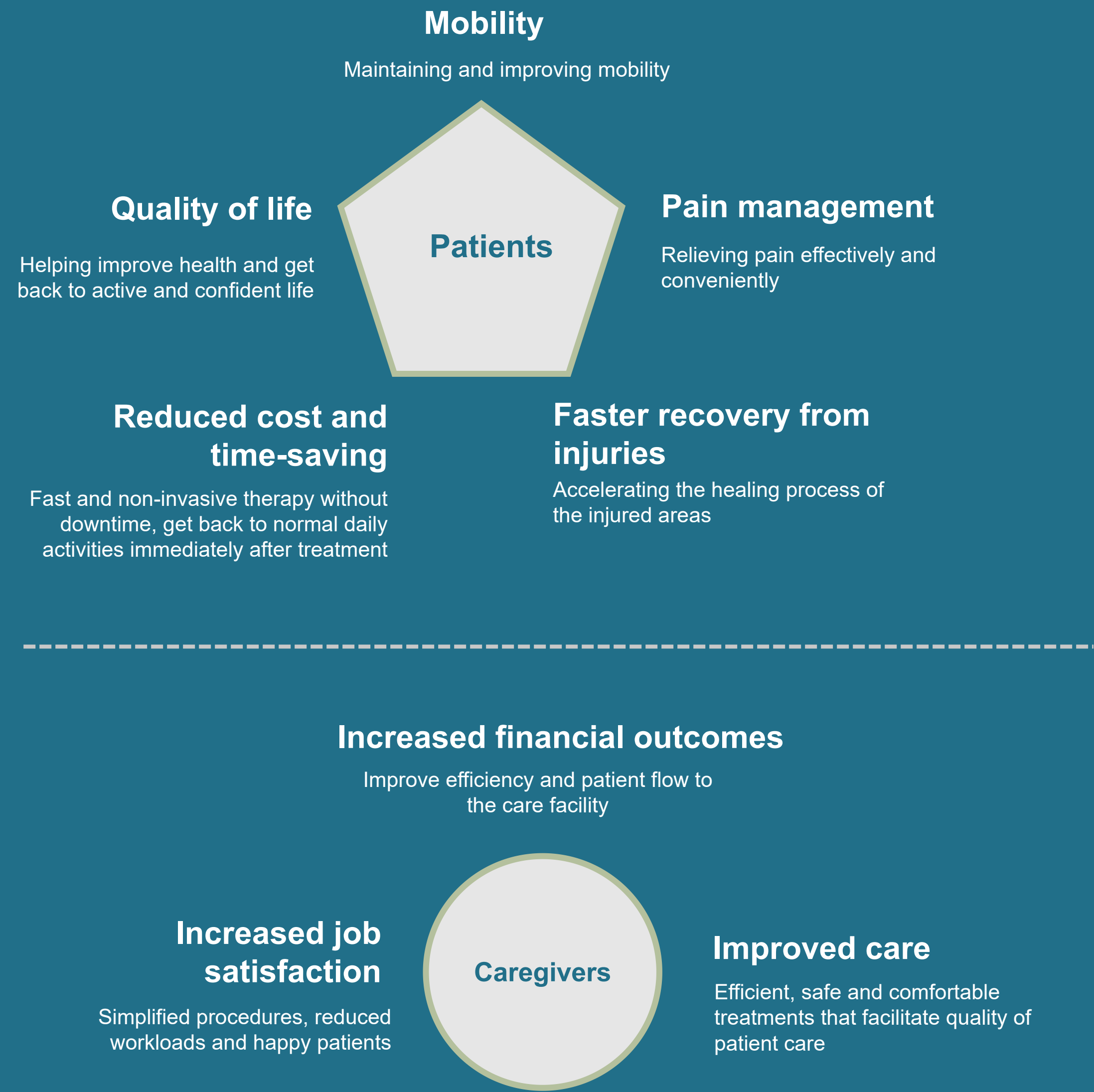


Better environment for rehabilitation



Great support to caregivers

Benefits of Longest Solutions



The Longest Musculoskeletal Care Portfolio

PowerShocker LGT-2500F

Designed to make everyday tasks easier. The large touch screen allows for a more intuitive operation of the devices. The built-in silent air tank ensures continuous and stable treatment.

The device can be moved from place to place instead of relocating the patient, easing the burden of a healthcare professional on their practice and achieving a better patient experience.

- Unique lease mode
- 10.4" foldable touch screen
- Clear body navigation
- Pressure: 1.0 – 4.0 bar
- Frequency: 1 – 17 Hz



PowerShocker LGT-2500S Plus

Besides the powerful shockwave therapy treatment, LGT-2500S Plus is specifically designed with a vibration massage channel that can be used to relieve pain and relax muscles after shockwave treatment.

- 2 channels: shockwave therapy + vibration massage therapy
- 11 preset protocols
- User-defined protocols with clear body navigation
- Built-in silent air compressor
- Pressure: 1.0 – 5.0 bar
- Frequency: 1 – 22 Hz



PowerShocker LGT-2500S

A lightweight & portable shockwave therapy device that allows physiotherapists to deliver speedy treatment whenever the patient is located, even at patients' homes. It also takes up less space, avoiding overcrowding of the facility.

- Small & portable enough to be used in multiple medical fields.
- Many preset protocols for simpler and fast operation treatment.
- Built in silent air compressor, providing stable and continuous shock waves



PowerShocker LGT-2510A

The most powerful shockwave therapy device to be used in clinics to provide superior patient care.

- Large storage space
- User-defined protocols
- Unique burst mode
- Visual Analog Scale for pain assessment
- Patient database



PowerShocker LGT-2510 B

The strongest shockwave therapy devices that reduce treatment time and allow practitioners to attend to a greater number of patients without impacting quality.

- 2 channels
- User-defined protocols
- Unique burst mode
- Visual Analog Scale for pain assessment
- Patient database



Air Compression Therapy LGT-2200L

A powerful and professional intermittent pneumatic compression (IPC) device used by professional therapists to help patients improve blood flow, reduce swelling and pain, manage varicose veins, improve lymphatic function, release muscle tension, and prevent blood clots.

- 2 channels with 5.7" touch screen
- 18 modes for various compression flow
- Powerful pump that provides stable output
- Individually adjustable pressure for each chamber
- Disable one or more chambers to protect injured tissues
- Personalized treatment programs from the most basic patient needs to more complex clinical prescription



Air Compression Therapy LGT-2200SP

A portable intermittent pneumatic compression (IPC) device designed for consumers to use at home. It allows people to boost blood flow and speed up recovery whenever in need, with enhanced ease and comfort.

- Rechargeable battery ≥ 6 h working hours
- 6 modes, meet most treatment needs
- Durable pump: withstand 10,000h tests
- Real-time pressure monitoring
- High quality overlapping sleeves



MStim Reha LGT-231

A dual-channel muscle stimulator for pain management (TENS) and function restoration through muscle training & reeducation (NMES). It can be used by therapists in the clinics to maximize efficiency and patients at home to treat the conditions quickly and conveniently.

- 2 channels
- 2 modes: TENS & NMES
- Lightweight & portable
- User App control for more intuitive and convenient operation
- Many preset protocols with body navigation



MStim Arth LGT-235

A wearable electrical stimulator for pain management (TENS mode) and damaged tissue repair (MCR mode) around knees. It only consists of a stimulation unit, an electrode lead hose, and a knee brace with built-in electrodes - lightweight and wearable.

- 2 modes: TENS & MCR
- Wireless & Wearable
- Mobile app control, intuitive operation
- Rechargeable battery: ≥ 4 h





We are continuously developing products that improve outcomes and experiences for people with musculoskeletal conditions.

Empowering Healthcare Professionals to Advance the Health and Vitality of People Throughtout the Life.



References:

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2. Website: <https://rmi.colostate.edu/ergonomics/injuries-and-injury-prevention/musculoskeletal-disorders-risk-factors-reporting/>
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