

McBROTHERS ROBOSPINE

Innovative orthopedic system that helps treating
various spinal diseases **safely and efficiently**



SPINAL PROBLEMS IN NUMBERS

Impact on quality of life and the economy

- One in 10 health care visits is due to a spinal condition
 - One in every 3 visits for pain is due to back pain
 - One in 2 disabilities are caused by a spinal condition
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- Affects millions of people worldwide
 - \$200+ billion a year is spent on back pain treatment
 - The total loss to the world economy from temporary or total disability due to back pain approaches a trillion dollars
 - And finally, not measurable in money:
people lose their jobs, level and quality of life

* Data by WHO & expert studies

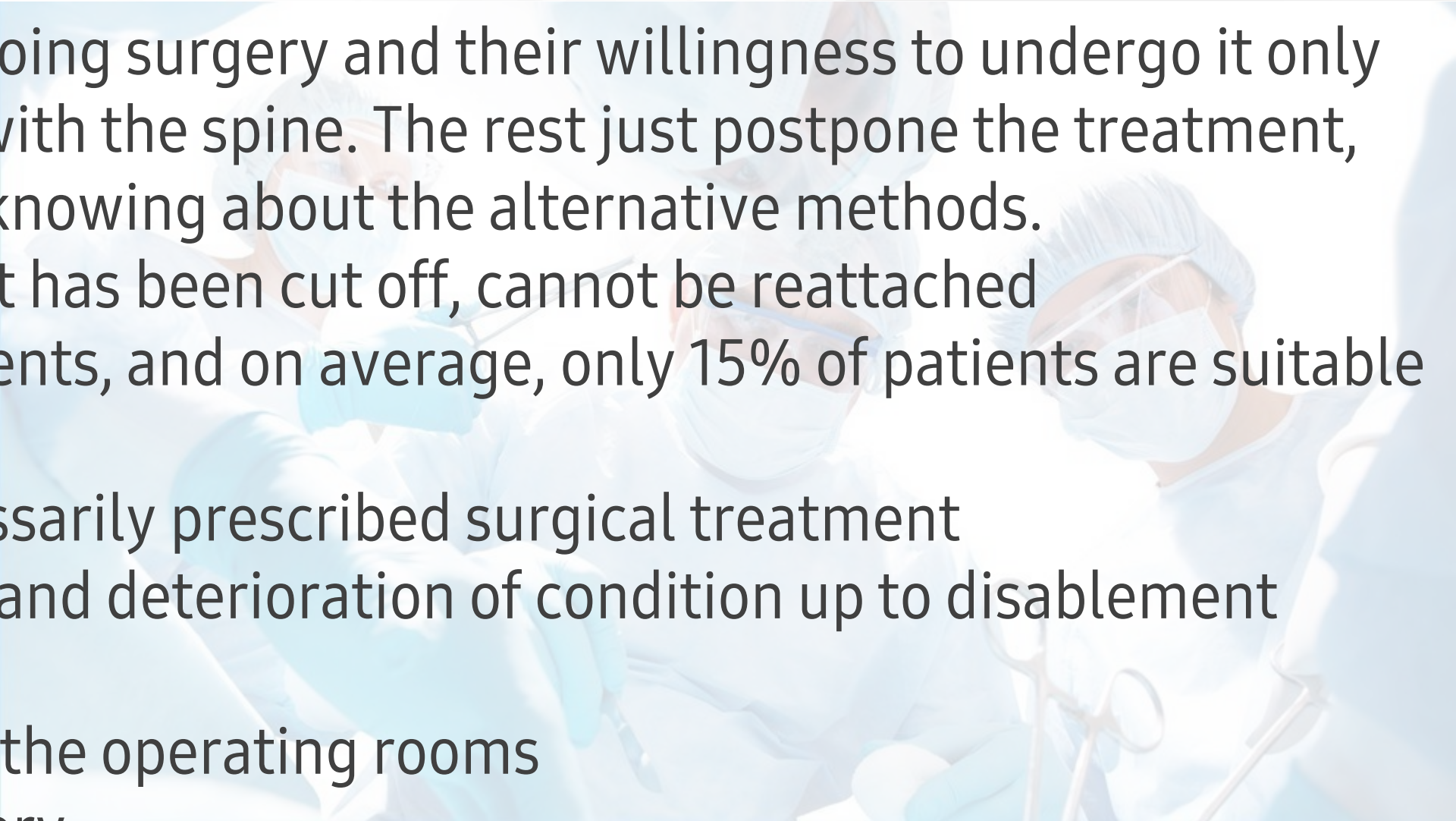
METHODS OF TREATMENT FOR BACK PAIN

Overview

- **Surgical operations**
- **Pain medication blockade**
- **Manual therapy**
- **Physical Therapy**
- **Administration of pain medications**
- **Various "artisanal" and "traditional" methods**

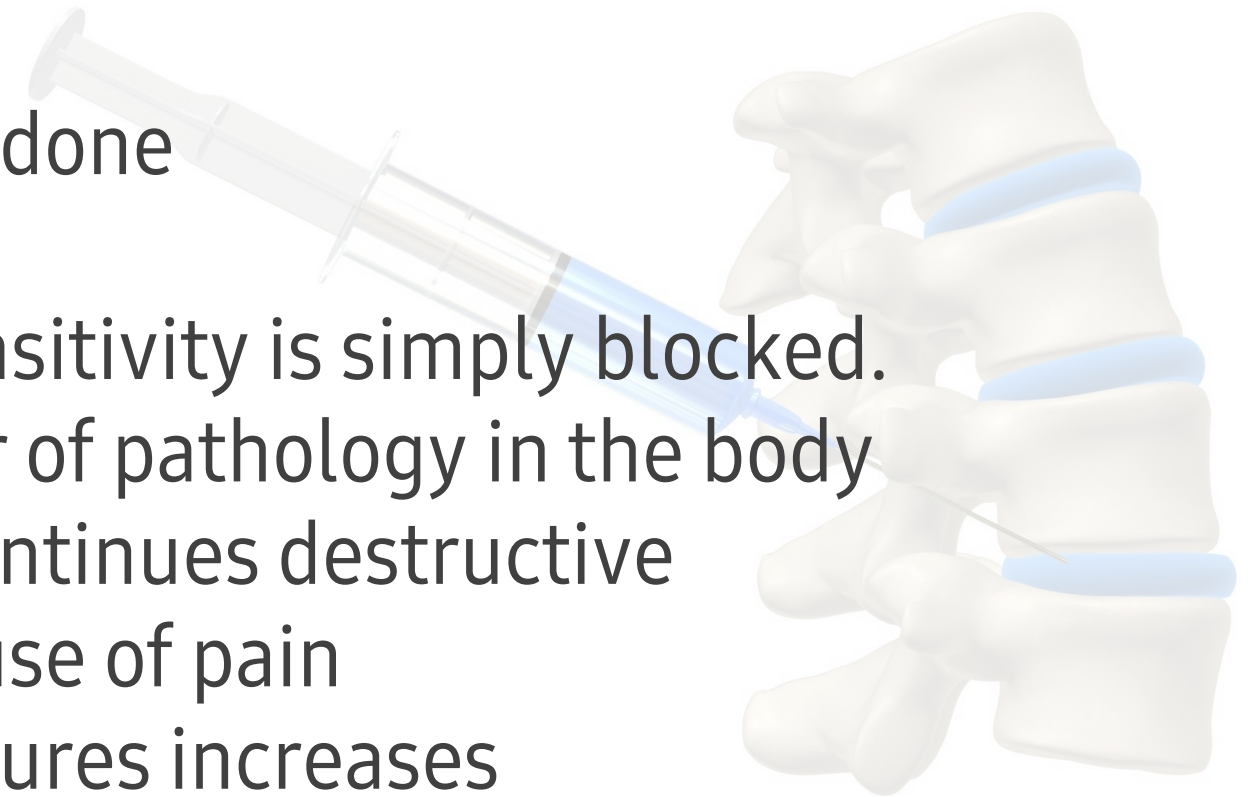


SURGICAL METHOD OF TREATMENT

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- A faded background image showing several surgeons in blue scrubs and masks, focused on a surgical procedure in an operating room.
- Natural fear of patients of undergoing surgery and their willingness to undergo it only in case of very serious problems with the spine. The rest just postpone the treatment, worsening the condition and not knowing about the alternative methods.
 - Irreversibility of the method: what has been cut off, cannot be reattached
 - It is not recommended for all patients, and on average, only 15% of patients are suitable for surgery
 - Up to 95% of patients are unnecessarily prescribed surgical treatment
 - High risk of unsuccessful surgery and deterioration of condition up to disablement & loss of mobility
 - Need to wait for free time slots in the operating rooms
 - Need for rehabilitation after surgery:
treatment that requires follow-up treatment!

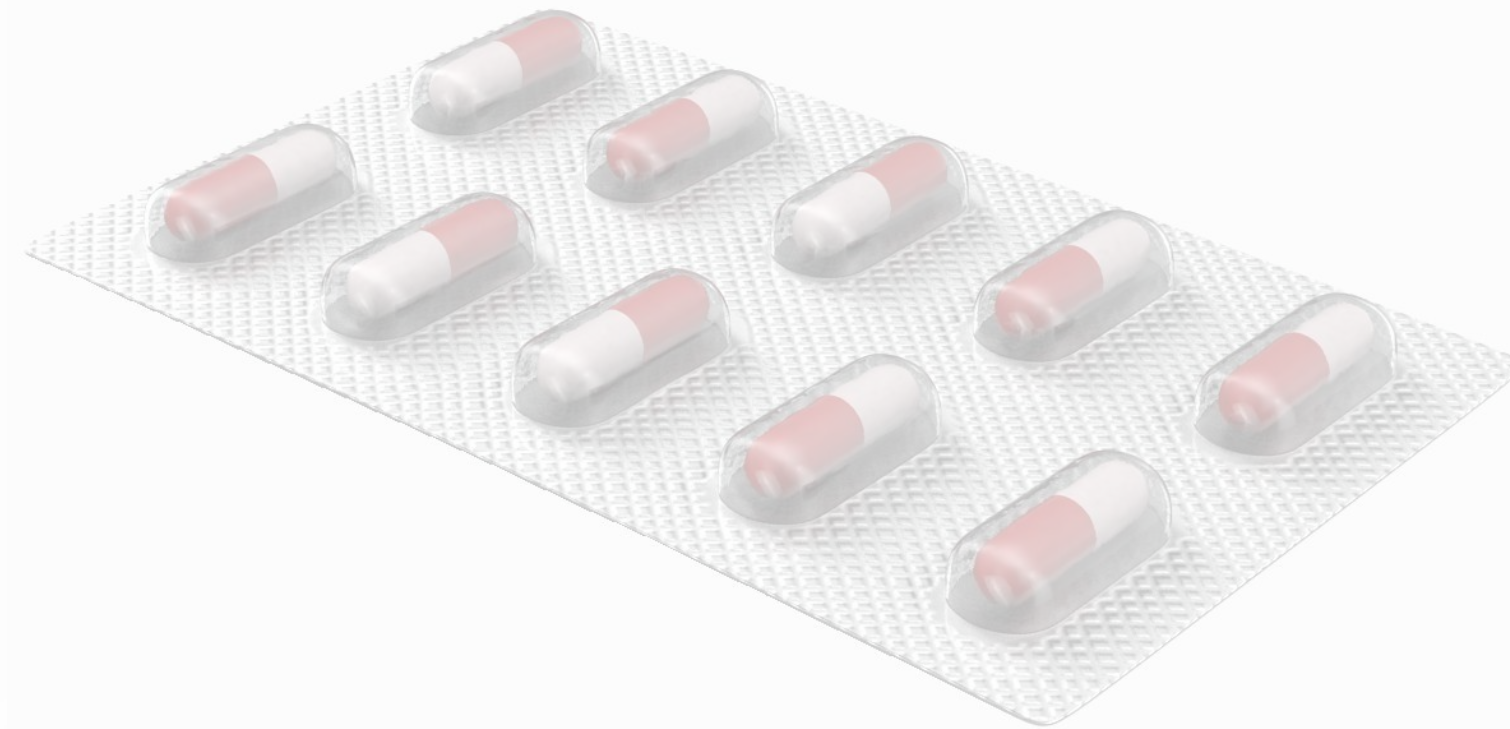
INJECTION PAIN BLOCKADE IN THE OPERATING ROOM

- Fear of spinal injections
- Risk of clinical errors and infection
- Need for an operating room
- Radiation exposure because the injections are done under the control of C-Arm Xray
- Cause of the pain is not eliminated, but the sensitivity is simply blocked. As a result, PAIN, the most important indicator of pathology in the body is eliminated, and the patient, not feeling it continues destructive way of life more and more aggravating the cause of pain
- Decreasing efficiency as the number of procedures increases



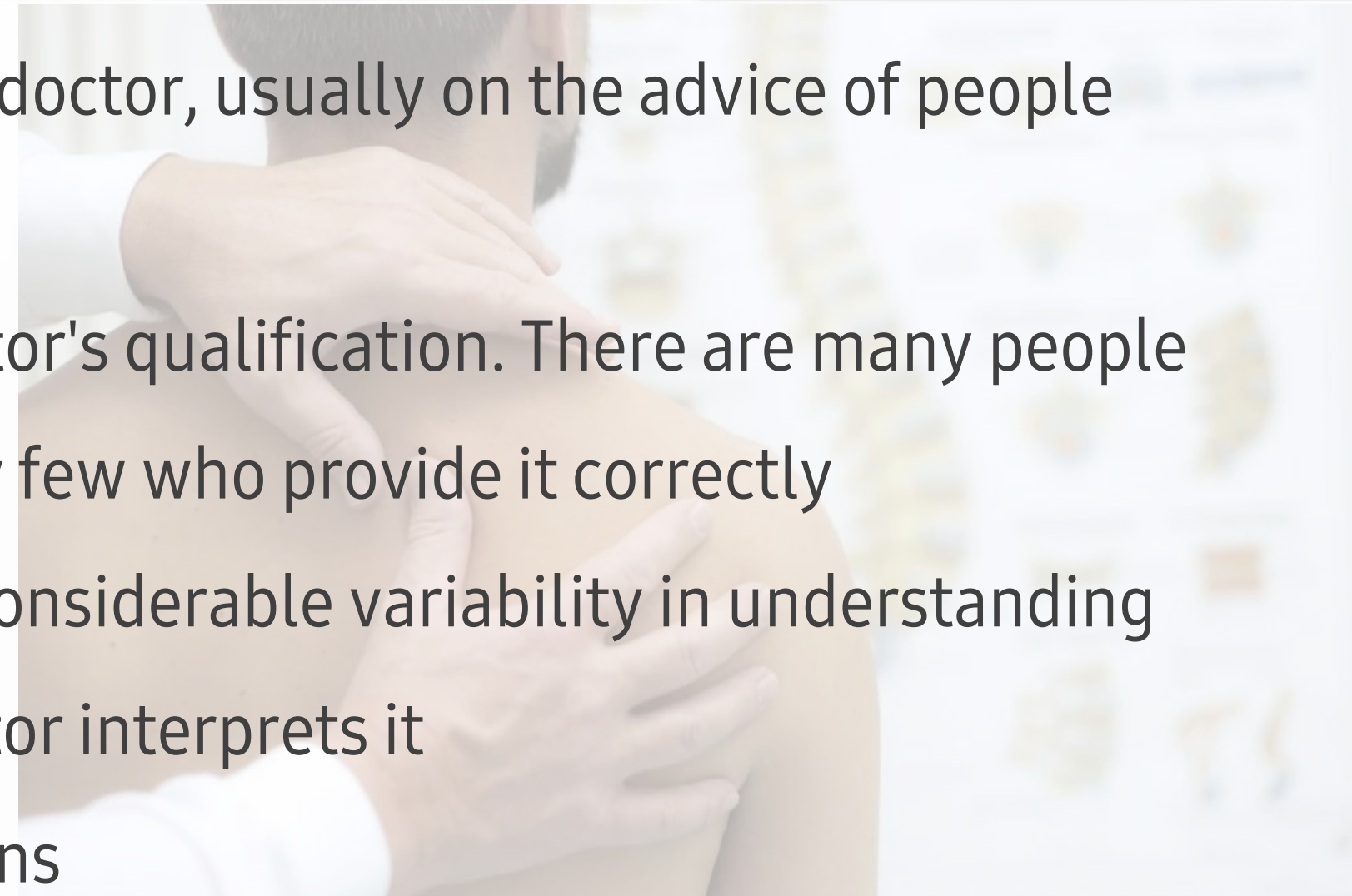
TAKING MEDICATION

- Limited ability to control pain
- Addictive effect
- Inability to target pain
- Effect on the entire body rather than on the source of pain
- Individual intolerance of drugs
- Influence on the pain, not on its cause



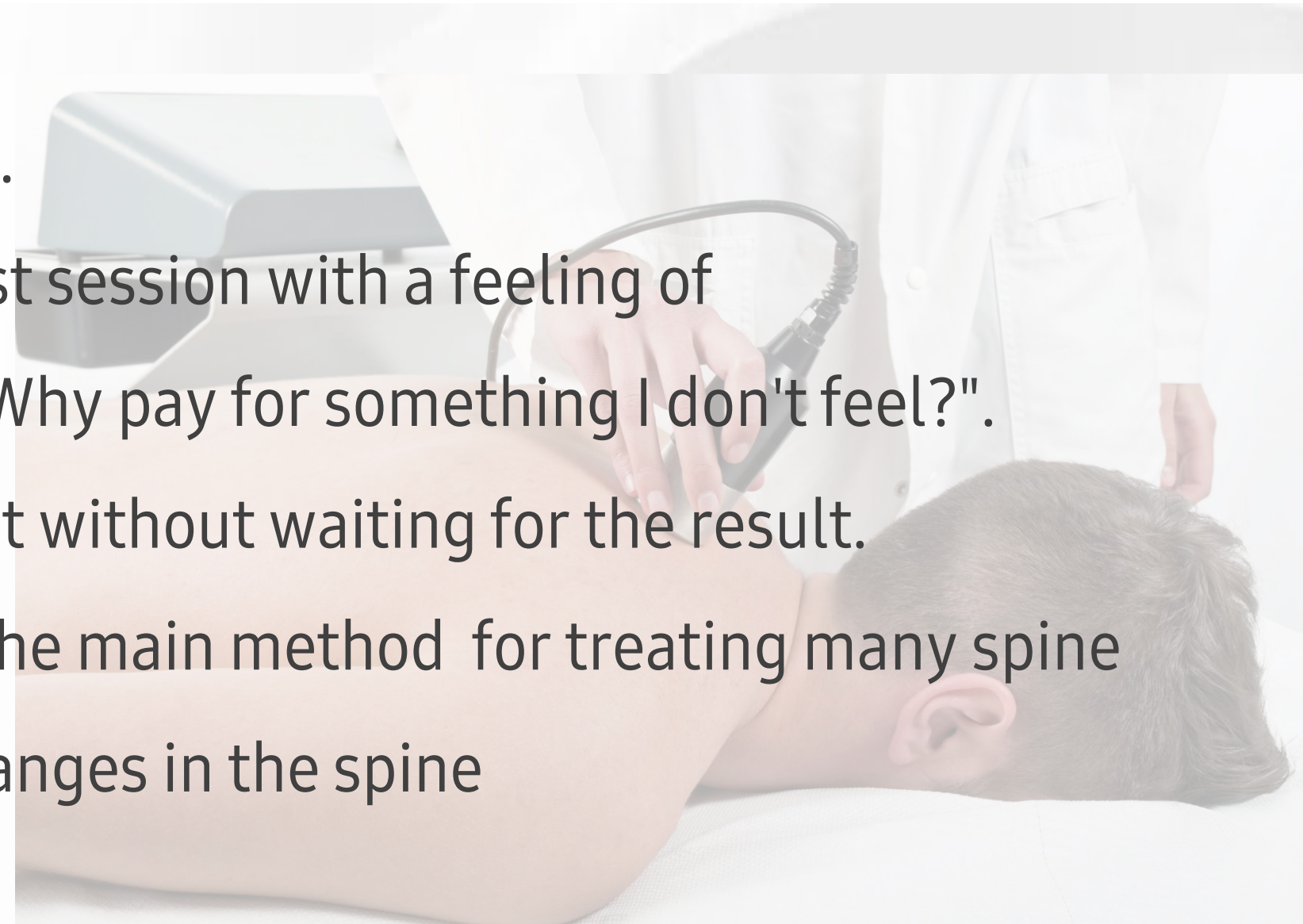
MANUAL THERAPY

- Problem of finding and choosing the right doctor, usually on the advice of people you know
- Maximum level of dependence on the doctor's qualification. There are many people who offer chiropractic treatment, and very few who provide it correctly
- Lack of clear standardization of efforts & considerable variability in understanding of the method, depending on how the doctor interprets it
- High risk of clinical errors and complications
- Need to wait for a time slots in a doctor's schedule and dependence on a particular specialist



PHYSIOTHERAPY

- Often non-obvious effect of the treatment.
As a result, the patient leaves after the first session with a feeling of "What was that and how can it help me? Why pay for something I don't feel?".
As a consequence, many give up treatment without waiting for the result.
- Physiotherapy is an auxiliary rather than the main method for treating many spine conditions associated with mechanical changes in the spine (disc compression, scoliosis, etc.)



ARTISANAL & TRADITIONAL METHODS

- Complete lack of predictability of treatment outcomes
- Lack of any standardization
- Often the lack of medical education of the "specialist" and a proper understanding of the origin of back pain and disease
- Very high risk of damage and deterioration
- A large number of charlatans and just plain misguided



What do we suggest?



TO FIGHT
THE CAUSE
OF THE BACK PAIN!



CAUSES OF PAIN

Straightening and Gravity

- Almost all spinal problems and causes of back pain are related to upright posture and the constant compression loads on the spine.
- So the life itself, under the influence of the gravity of the earth, inevitably and constantly creates a compression load on the spine.
- It is nothing new to suggest a method of reverse action — decompression — to combat the compression stress on the spine!
- There are many different systems for spinal decompression that have long been used with varying degrees of success.
- It was the differences in the results that led us to the idea of taking the best, discarding the worst and adding what most decompression systems lack — **safety!**

This is how ROBOSPINE,
a multiplanar spine decompression system,
was created!



ROBOSPINE KEY FEATURES

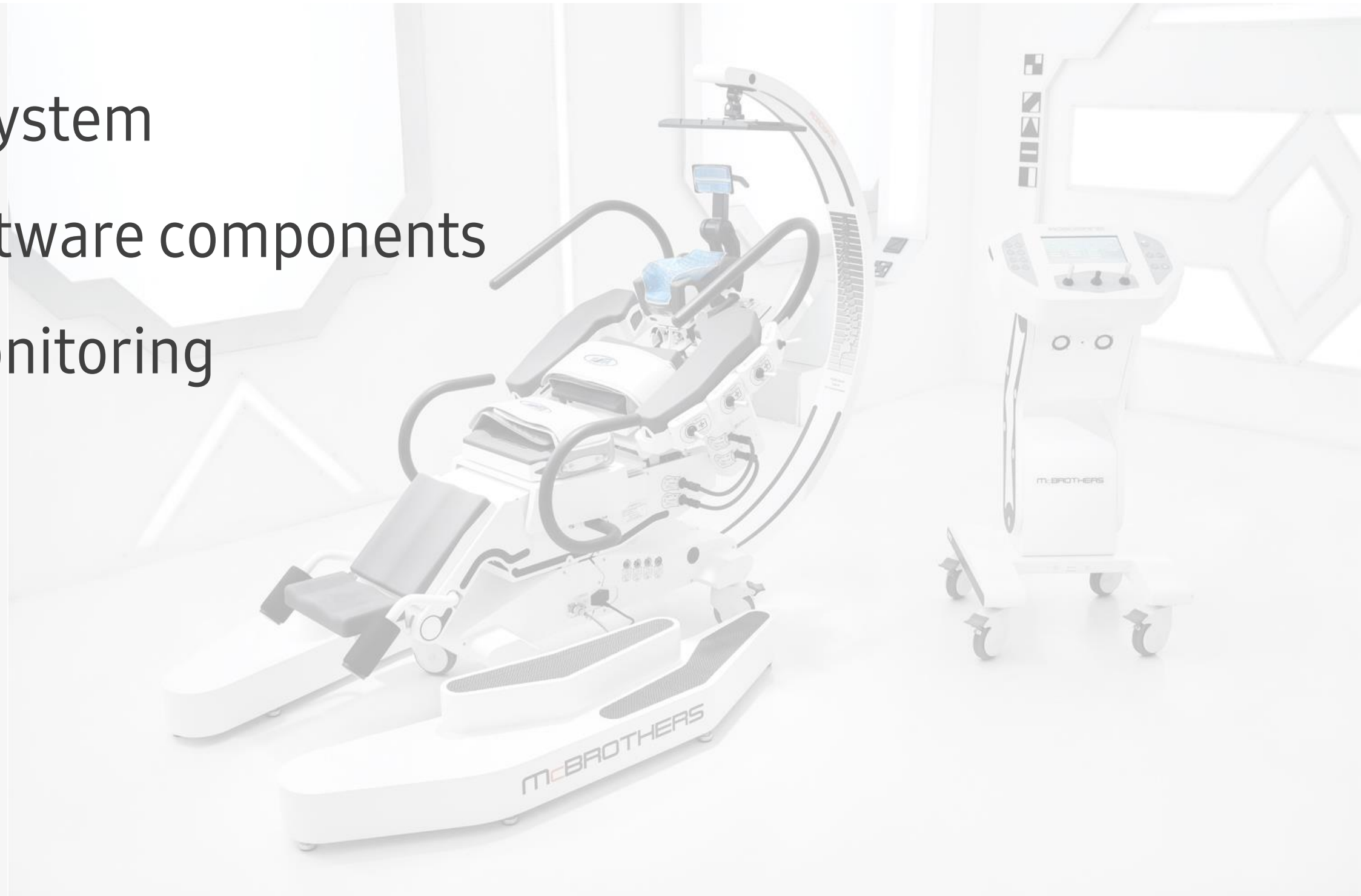
McBROTHERS
ROBOSPINE



- Safety
- Automation
- Functionality
- Convenience
- Design

SAFETY

- Patented security system
- Mechanical and software components
- Safety feedback monitoring



AUTOMATION

- Automatic programs
- Optional manual mode
- Flexible settings for the patient
- Stable results due to eliminating the human factor



FUNCTIONALITY

- Multiplanarity
- Cervical, thoracic and pelvic sections
- Physiological, not mechanical

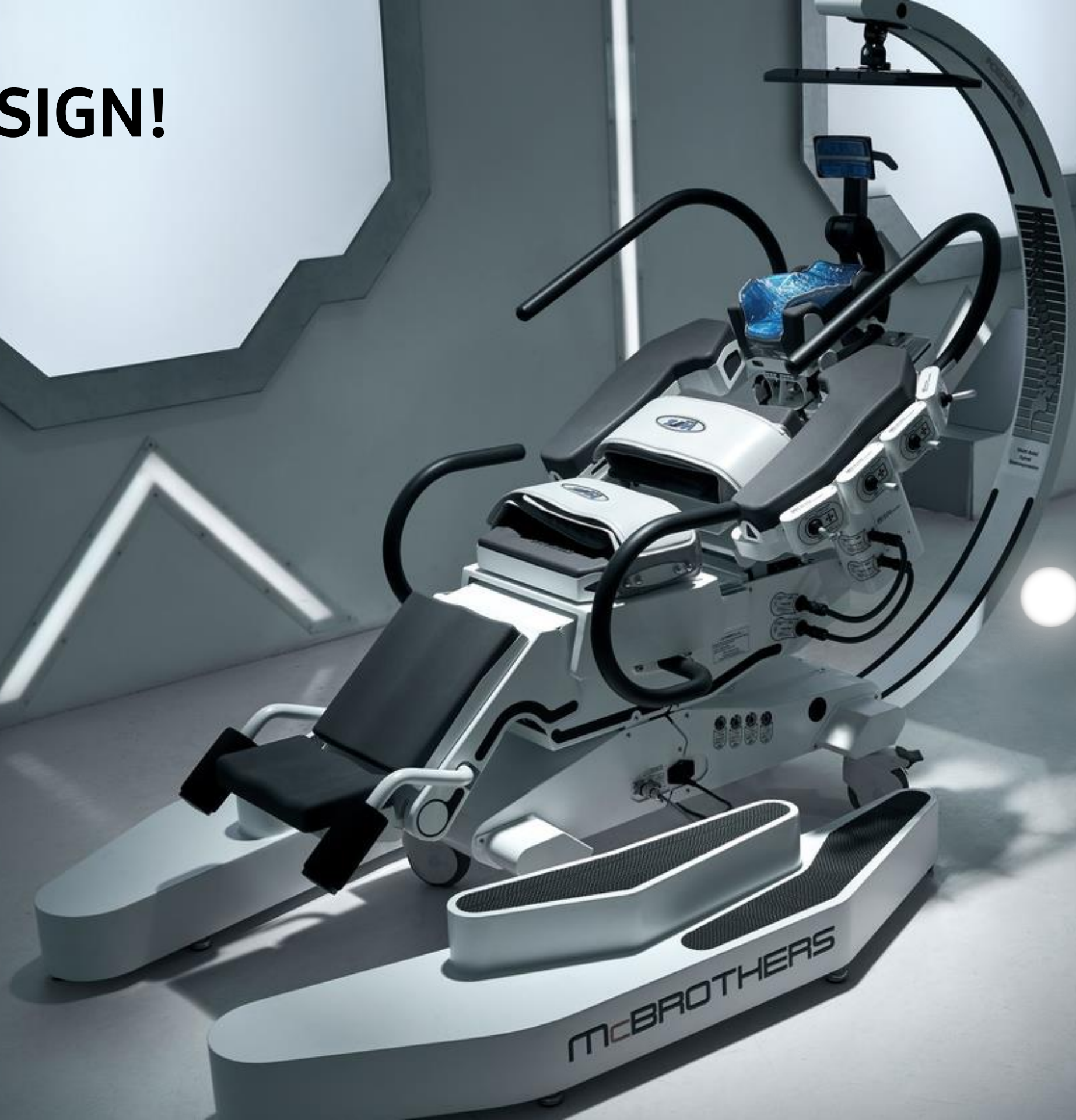


CONVENIENCE

- Patient monitor
- Intuitive control interface on console
- No extensive training required to operate the system
- Compact, lightweight and equipped with wheels for easy transportation
- Only 3 m² of floor space required



DESIGN!



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SWISS QUALITY

RECOGNIZED SOLUTIONS

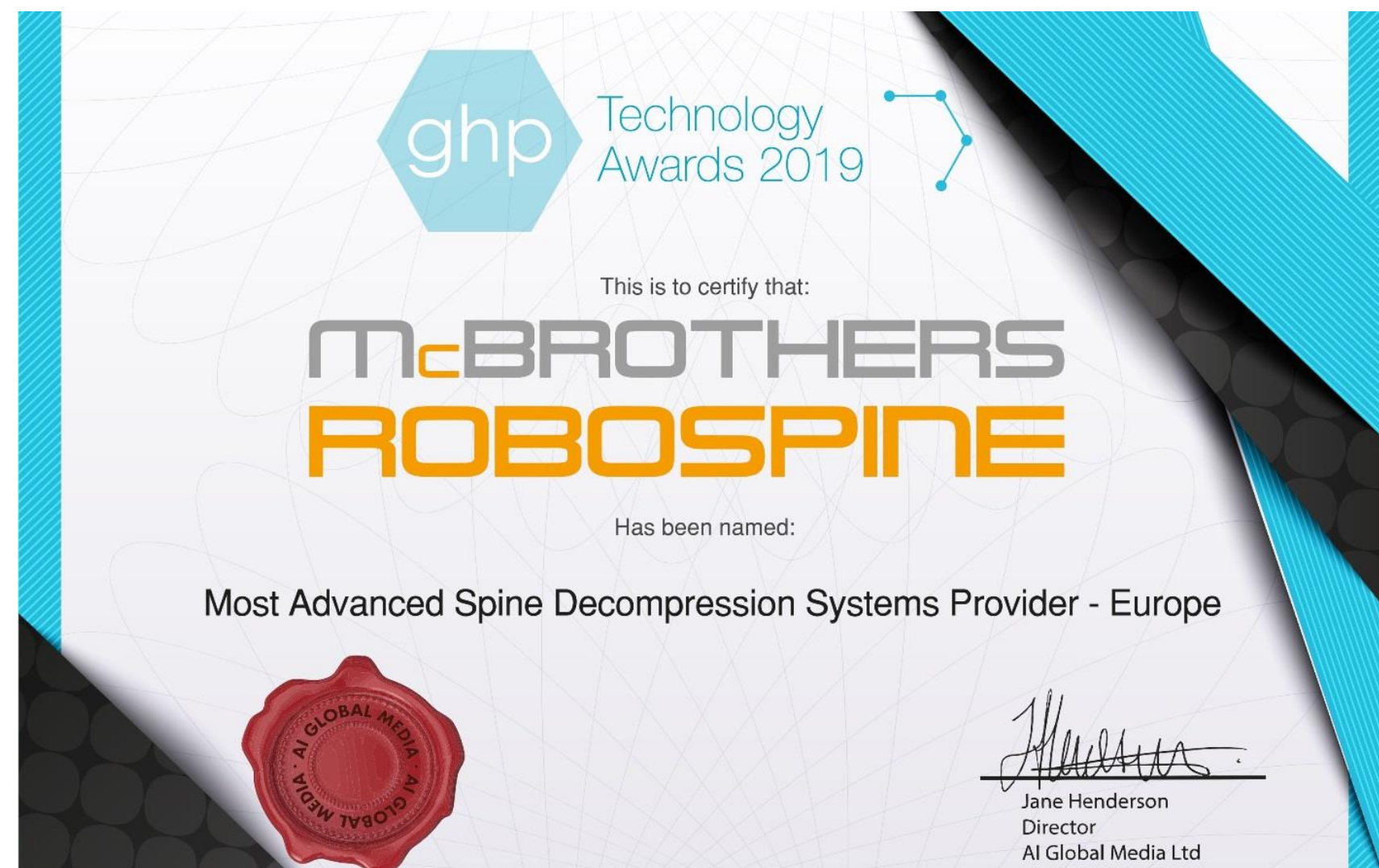
for spinal health

ROBOSPINE — Technology Awards Winner
as the most advanced spine
decompression system, 2019



Approved by Russian Ministry of Health
P3H 2021/15156

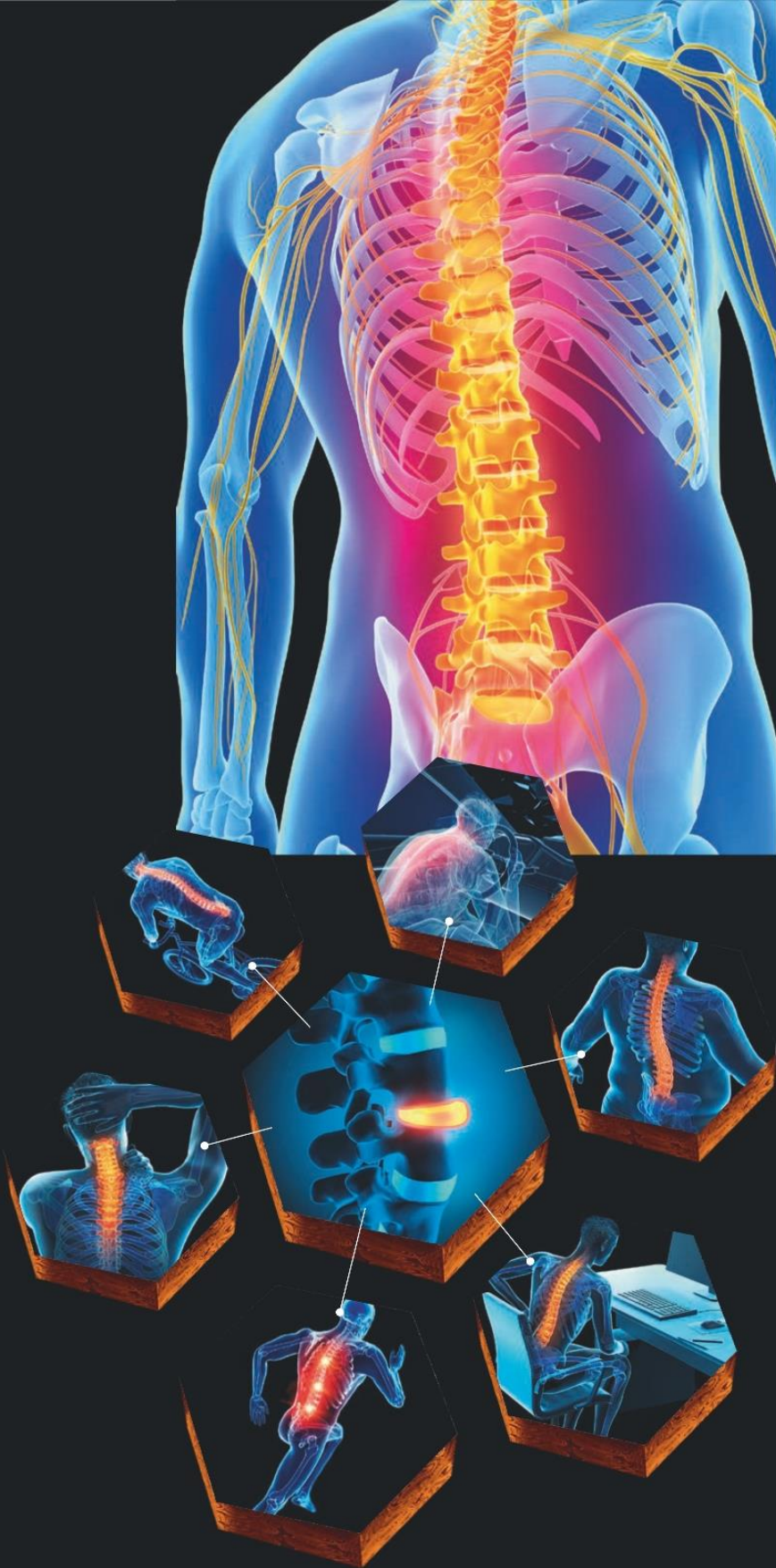
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ghp Technology Awards 2019

INDICATIONS

- Intervertebral disc herniation
- Lumbosacral radiculitis
- Intervertebral disc protrusion
- Disc degeneration
- Numbness in the extremities
- Burning and tingling in the extremities and spine
- Pinched nerve
- Pain in the hip and leg
- Stenosis of the spinal canal
- Scoliosis
- Need to unload the spine
- Pain relief
- Treatment of sexual impotence in combination with shockwave therapy



The image shows a modern operating room with a robotic surgical system. The system consists of a large, white, articulated robotic arm with multiple joints, positioned over a patient lying on a table. The patient is covered with a blue drape. The robotic arm has a blue light on its end effector. To the right of the patient, there is a control console on wheels with a screen and various buttons. The background shows a window with a geometric pattern. The overall lighting is bright and clinical.

Thank you!

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