For further information please contact us.

human med AG Wilhelm-Hennemann-Strasse 9 19061 Schwerin, Germany

Phone: +49 (0)385 395 70 0 Mail: info@humanmed.com Web: www.humanmed.com

Further ways on how to contact us.

Company website www.humanmed.com

Website for our method »AquaShape« www.aquashape.com

Information portal http://extranet.humanmed.com





Water-jet technology for aesthetic and regenerative medicine

Made in Germany



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Welcome!



Dear Reader

I encourage you to get to know us at human med and experience the enthusiasm and commitment to developing high quality and effective medical technology and the gentlest possible surgical procedures that we have displayed over the last 10 years. We are proud of what we achieve and the benefits that we create for you.

On the following pages, you can read about what makes our company unique, the technologies and products we manufacture and what we are planning for the future. We provide all key business skills and resources from within our company while still covering a wide range of applications in aesthetic plastic medicine.

We are a small medical technology company located in Schwerin that is currently active in more than 40 countries around the world. And we might soon be delivering our products to your door as well.

I hope you enjoy reading about our company and discovering something new.

Bernd Lindner

CEO human med AG







Our expertise

Our customers and partners across the world are impressed by our high quality, versatile and reliable medical devices which are now available in more than 40 countries.

Premium water-jet products

We develop and manufacture premium medical devices that are known for their reliability, versatility and precision. Because quality and sustainability are close to our heart, we do everything here in Schwerin, Made in Germany: from research and development to quality assurance and regulatory support. This means you can rest assured that the quality is genuine.

Quality is important to us

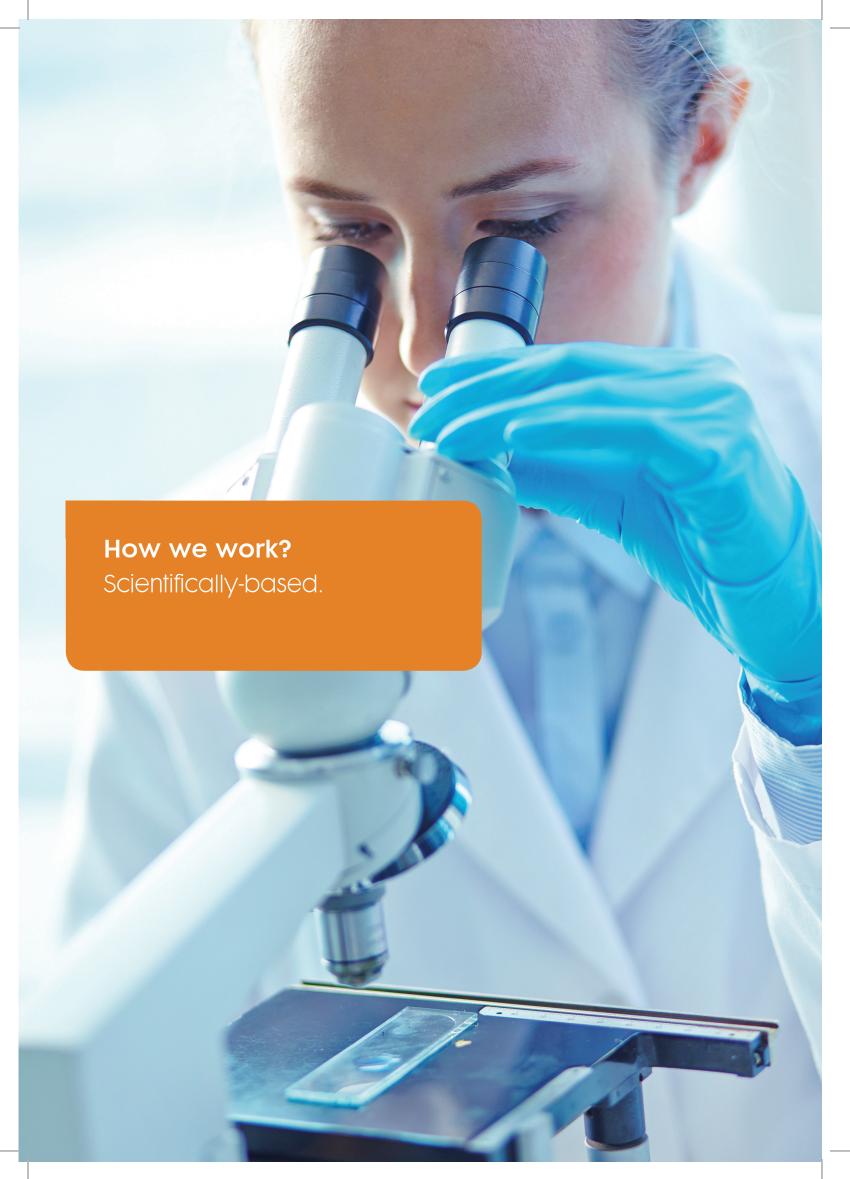
And this is what we insist on: along with our employees in quality assurance and assembly, it is our engineers in particular who refine our technologies with passion and patience, building and testing prototypes, and continuing to improve our unique water-jet technology and device construction.

Your satisfaction is our goal

German engineering ingenuity, conscientiousness and scientific expertise are the guarantee behind our premium medical devices.

Our patented water-jet technology is unique – worldwide we are the only provider of water-jet assisted medical devices for plastic, reconstructive and aesthetic surgery.

And if ever technical problems should arise, our service team will happily help out; if necessary, the team will come to you or your customers in the operating theatre.



Our know-how

Benefit from German engineering as well as our scientific know-how and medical science expertise. We develop our technologies and products based on scientifically sound research and innovative strength.

International research partnerships

We have the know-how and expertise to develop and refine new technologies and products. We can also build on productive national and international research partnerships with various institutes and universities as well as the close customer relationships we have developed with doctors actively involved in scientific research. A number of validated scientific studies testify to the effectiveness and efficiency of our waterjet technology and our sterile and enclosed water-jet assisted systems.

Long-standing funding

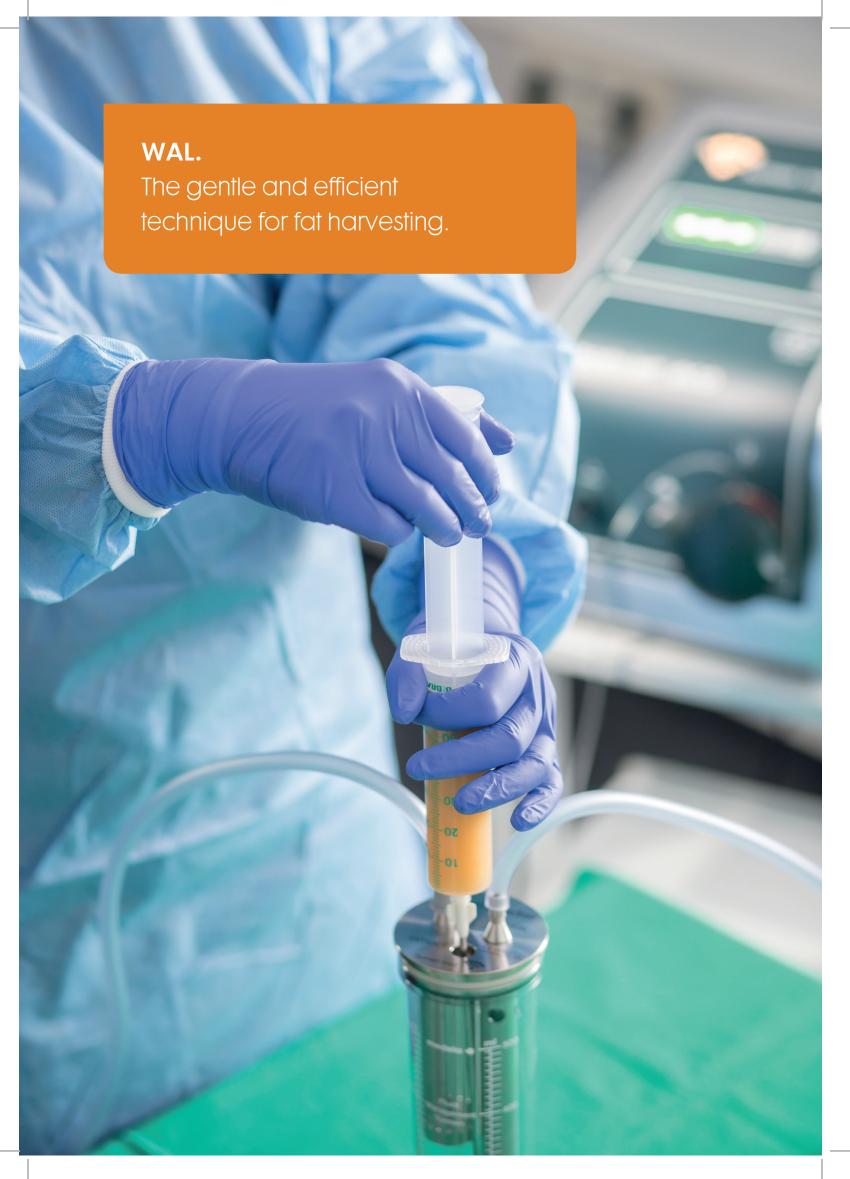
In the past we have received funding from the state of Mecklenburg-Vorpommern as part of various European projects in cooperation with universities in the state. A considerable number of international patent applications and brand name registrations are testimony to our innovative strength.

Future potential

Autologous fat will increasingly be a material used, with outstanding success, for a number of regenerative indications such as treating chronic, non-healing wounds, scars, adherent burn scars and scar pain. We are also bringing onto the market a novel system for intraoperative harvesting of adult stem cells for use in regenerative medicine: the Q-graft® stem cell system.

With our advanced Q-graft® system, we enable multipotent stem cells derived from fatty tissue to be used in a wide range of applications in research and the clinical area.





Our procedures

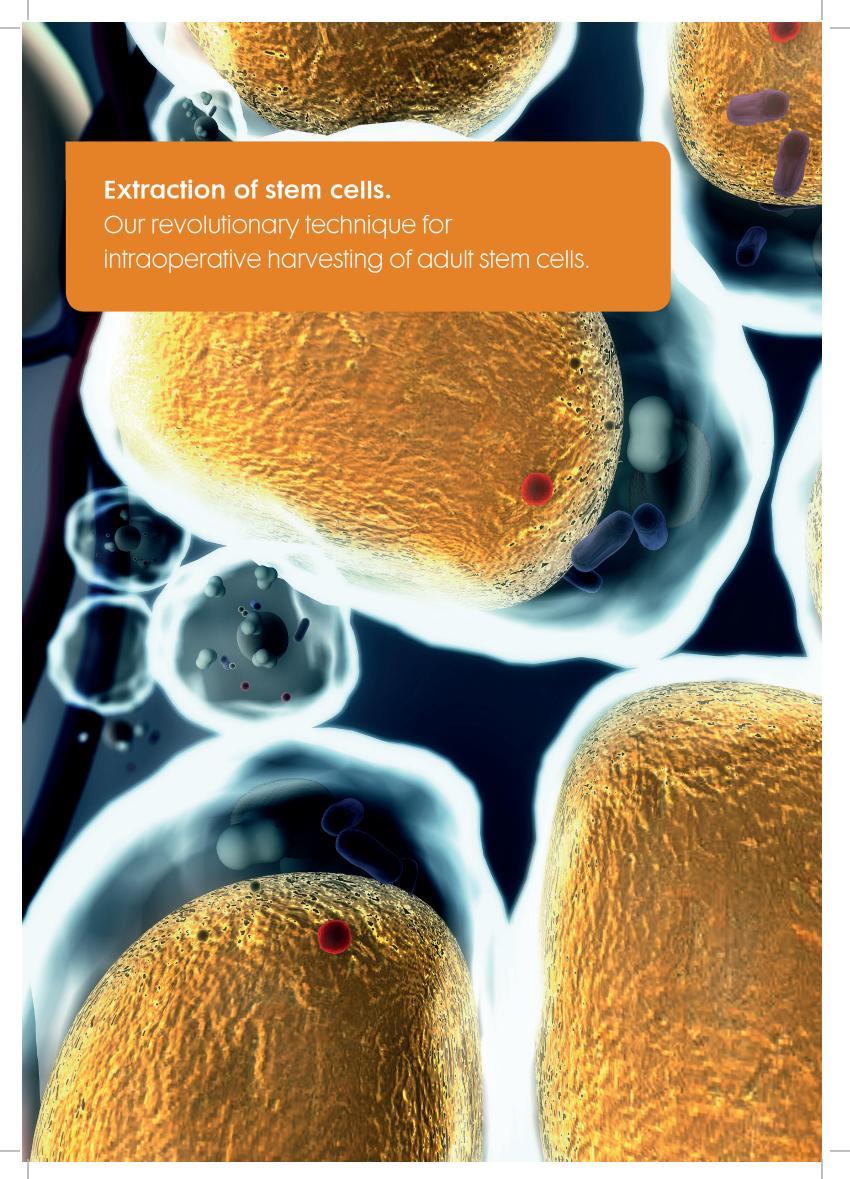
All our procedures are underpinned by water-jet technology. This includes harvesting and transplanting autologous fat, hydrodissection and intraoperative stem cell extraction. Thanks to the intelligent use of the gentle and selective power of the water-jet, you save time and money while satisfying your patients.

Water-jet assisted liposuction and autologous fat transplantation (WAL)

The patented principle of water-jet assisted liposuction and autologous fat transplantation (WAL) is based on the intelligent use of the gentle and selective power of the water-jet. Using a special drive and specially manufactured cannulae, the pressure of the fine, fan-shaped water-jet can be adapted to the different connective tissue structures. Using our technology enables you to specifically detach fat cells from the tissue while also suctioning them off. The surrounding subcutaneous fatty tissue, nerves and blood vessels of your patients remain largely undamaged in the process.

During gentle water-jet assisted liposuction, the suctioned fat is harvested, filtered and collected in a sterile, enclosed system. The system we have created enables you to gently and safely harvest, prepare and reinject autologous fat in a time-efficient process. Centrifugation or additional treatment of the fat prior to transplantation is not necessary.

The water content of fatty tissue harvested in this manner is about 15%. This also facilitates the distribution of the transplanted fatty tissue into recipient tissues such as the breast or face.



Our procedures

Hydrodissection is an efficient and gentle technique used for tissue separation for which your patients will thank you. And with our exceptional procedure for stem cell separation, you can extract stem cells during surgery – in the sterile environment – from the fatty tissue.

Water-jet assisted dissection

Using water-jet assisted dissection (hydrodissection), the soft tissue directly beneath the skin is gently and specifically detached using the fine, fan-shaped water-jet while surrounding vessels and nerves are kept largely intact. Thanks to the gentle separation of the tissue structures, there is considerably less bruising and postoperative swelling as well as improved healing.

The hydrodissection technique can be used, for example, for removing sweat glands (hyperhidrosis) or for a particularly gentle version of SMAS lifting (water-jet assisted facelift).

Stem cell extraction

With stem cell extraction, the regenerative cells from the stromal vascular fraction (SVF), including the adipose mesenchymal stem cells (ASC) that are present, are extracted from the fatty tissue into a sterile, enclosed system. The regenerative cells are separated in an essentially mechanical process using fractionated filtration and concentration in the cross flow procedure. During the fatty tissue dissociation, the tissue is warmed to 37°C and optimally mixed together. The cells can be separated with and without collagenase. The entire process is completed in the sterile operating theatre, meaning that the procedure is not associated with additional costs.

Our body-jet® product range



Our sterile, enclosed body-jet® systems are designed for gentle water-jet assisted harvesting and preparation of fat.

Benefit from our technically mature, reliable products and a diverse and wide range of possible applications.

body-jet®

With the introduction of the body-jet® system for water-jet assisted liposuction (WAL) in 2005, we took a whole new direction in aesthetic body shaping and laid the foundations for modern water-jet assisted autologous fat transplantation. Our established and reliable body-jet® reveals our long-standing industrial experience with water-jet dissectors where precise control and gentle treatment of the tissues are essential.



body-jet® evo

The body-jet® evo, which has been on the market since 2012, is an intelligent refinement of the established and reliable body-jet®. The novel drive of the body-jet® evo means that the intensity and effectiveness of the water-jet can be even more precisely controlled. This enables faster and easier liposuction for more effective fat transfer of both small and large volumes.

Along with the contemporary and modern user concept with a wide range of presettings for liposuction and fat transfer, there are also a number of individual programming options available for you. The 'big brother' of the body-jet® is also the platform and doorway to other new technologies such as regenerative medicine and intraoperative harvesting of adipose stem cells.



body-jet® eco

The 'baby brother' of the body-jet® is the system used for management of small quantities of fat and has been available since 2014. The body-jet® eco was developed for precise collection of smaller quantities of fatty tissue for subsequent lipofilling on the face and hands. It has been optimised for transferring small quantities of fat: precise work is assured thanks to the finest consistency of the fat with high quality.

Our collector product range



Our collectors simplify the harvesting of living, injectable fatty tissue for autologous fat transplantation, provided no further preparation of the harvested fatty tissue is required.

We offer single-use collectors and matching cannulae for a wide range of different applications.

FillerCollector® and LipoCollector®3

The LipoCollector® and the FillerCollector® adapt to different lipofilling volumes. The two systems can be reprocessed, saving you considerable costs. The particular advantage of these systems is that they are enclosed: from the tip of the cannula in the patient's body right to the LipoCollector®/FillerCollector®.

The fat is automatically separated from the coarse connective tissue fragments in the collectors (no more blocked cannulae) and is then washed (removal of toxic local anaesthetics and adrenalin) and concentrated.

No further processing (e.g. centrifugation) is needed!

Our Q-graft® System

Our novel Q-graft® System enables intraoperative harvesting and application of regenerative cells derived from fatty tissue, the stromal vascular fraction (SVF) and adipose mesenchymal stem cells (ASC) under routine surgical conditions.

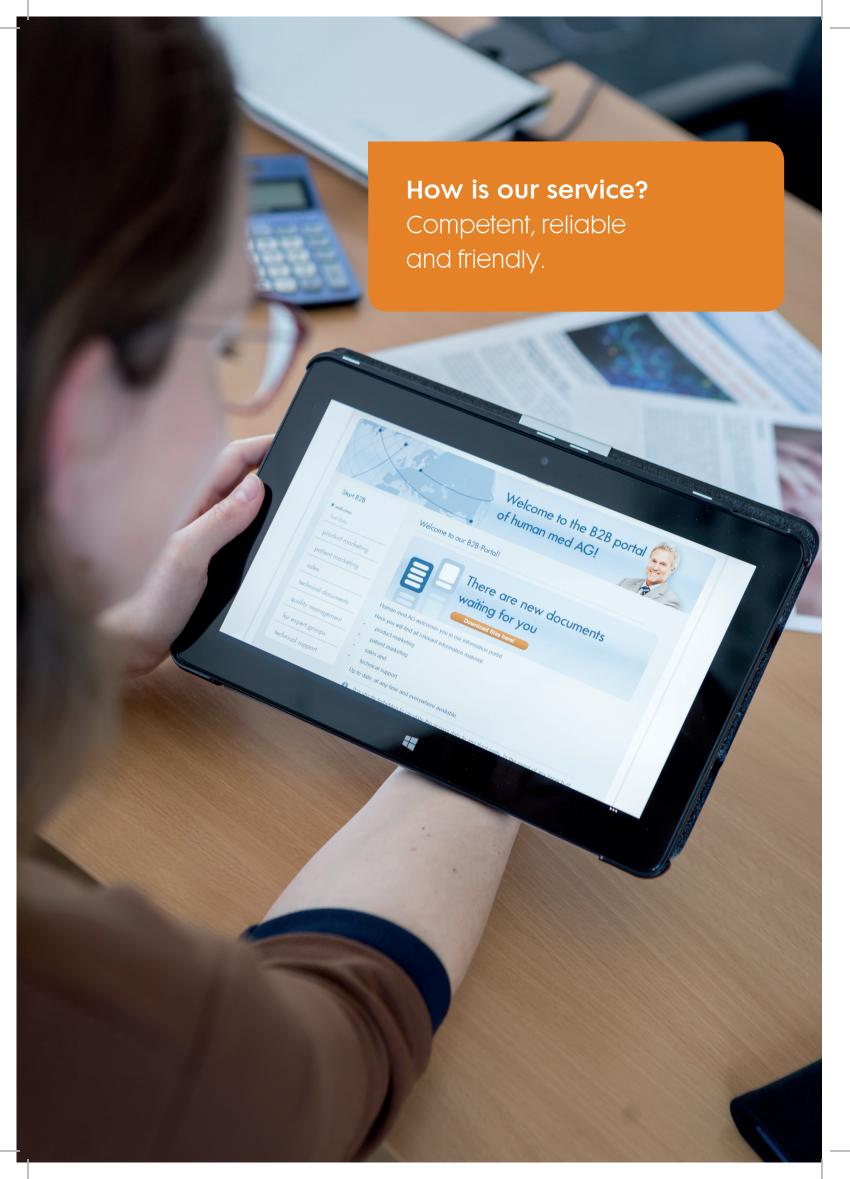


The Q-graft® System is currently the only medical device worldwide that enables stem cell separation and concentration on the sterile operating/instrument table in an enclosed sterile system during liposuction.

The Q-graft® System is made up of

- the single-use Q-graft® Collector in which the fatty tissue that is suctioned off with the bodyjet® eco is collected and where the cells are mechanically separated and concentrated with or without collagenase, and the
- the control unit, Q-graft® Control, that steers the functions of the Q-graft® Collector.

Our Q-graft® System is highly efficient in terms of the number of harvested regenerative cells (SVF and ASC).



Our service

Ask our service team any questions you may have about our technology, our products, approvals or sales – we are happy to answer them.

Our partners and customers value our competent, reliable and friendly service team to resolve technical questions or queries related to approvals or sales or even problems.

Comprehensive service

Our technical support team assists our customers around the world, seven days a week, training and supervising technicians, instructing customers in the use of our devices and solving difficult technical problems on site.

We also provide support for the approval process for our devices in different countries, including providing the necessary product folders and other documents necessary for marketing authorisation.

Our sales team is available at all times – an expert team to answer your questions as well as being available for more than 40 sales partners around the world.

Always up to date and available at all times

In marketing we support our customers and partners in product and patient marketing, with an international information portal that is available at all times and a website specifically for interested patients (www.aquashape.info). In our information portal you can find the latest marketing and sales materials. All registered partners and customers are automatically informed about the latest developments and materials.



Our goal

Creating crucial added value for medical personnel and patients, that's what drives us. We want both you and your patients to be satisfied.

Our goal is your satisfaction

We also want to use innovative technologies for a broad range of applications to create added value for both medical personnel and patients. We achieve this by providing doctors with the simplest and most efficient procedure possible, one that does not require long treatment times or centrifugation.

Our water-jet assisted systems are already contributing to the correction of soft tissue defects, improvements in scar tissue and wound healing using autologous fat. We find it particularly motivating to use our technology to help doctors be able to improve or save lives in the most diverse areas, from orthopaedics to oncology to cardiology.

We also want to help patients benefit from the gentlest and most natural procedure possible – with the fewest possible side effects, rapid healing and long-lasting natural results. Every day we are encouraged in what we do by hearing from our many satisfied patients.

Success based on innovation and quality, reliability and expertise

Speak to us personally and be impressed by our high quality products, our many years of experience in medical technology and our expertise. We look forward to hearing from you.

Our vision

Become a partner with an innovative German company and share in a promising new technology, new markets and potential.

Sustainable for the future

As the world's leading manufacturer of waterjet-assisted products for plastic, reconstructive and aesthetic surgery, we already set the standard. We also want to achieve this in regenerative medicine – by impressing with our quality.

The world of regenerative medicine has progressed rapidly and the first concrete clinical results relating to healing diseases with stem cells are now available. Regenerative stem cells derived from the fatty tissue are multipotent, which means they can differentiate into many other cell types (e.g. adipose, nerve, bone, cartilage, muscle, skin and vascular cells). This makes them of particular interest for treating diseases that currently do not have any or only inadequate treatments.

Degenerative joint diseases, Parkinson's disease, diabetes, multiple sclerosis, paraplegia, stroke or damage after myocardial infarction – the list of conditions that could be healed in future with the help of stem cells is a long one. And it is becoming longer: it may be possible one day to produce entire organs, bone tissue or teeth using stem cells.

Join us as we set new standards in regenerative medicine!

Imprint

human med AG Wilhelm-Hennemann-Strasse 9 19061 Schwerin, Germany

Phone: +49 (0)385 395 70 0 Fax: +49 (0)385 395 70 29 Email: info@humanmed.com

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REF-Nr.: 9001100