

Sports Medicine

Allograft Bio-Implant Solutions



Moving ahead with
high-performance products
and techniques that benefit
your active patients





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LifeNet Health's portfolio of allograft bio-implants most often used in sports medicine surgeries, such as knee and shoulder applications, are available in many different sizes to fit various applications.

Your active patients require high-performance solutions. And so do the surgeries you offer them. From routine ACL to complex reconstructions, LifeNet Health has high-quality allograft bio-implants with the biomechanical specifications you need to perform successful sports medicine surgeries.

Every year LifeNet Health, a trusted provider of transplant solutions, distributes more than 400,000 allograft bio-implants to meet the urgent needs of hospitals and patients around the country. Our record of safety is simply unmatched. As is our value. LifeNet Health offers you more than bio-implant supplies – we offer you safety, quality, innovation and service. That's the kind of value you and your patients expect and deserve.

At LifeNet Health, we understand the safety and quality of your allograft bio-implants are critical to you and your patients. As a leading regenerative medicine company, LifeNet Health has developed these technologies to ensure these needs are met with every bio-implant we provide.



Allograft Bio-Implant Sterilization

LifeNet Health's patented and proprietary Allowash XG® sterilization process achieves a 10⁻⁶ Sterility Assurance Level — a high degree of safety, without compromising biological and biomechanical properties.



Allograft Bio-Implant Decellularization

This patented and validated process renders allograft bio-implants acellular, without compromising the biomechanical or desired physiological properties of an allograft bio-implant for its intended surgical application.



Allograft Bio-Implant Preservation

A proprietary and patented glycerol-based preservation technology that allows allograft bio-implants to be stored in a fully hydrated state at ambient temperature.

About LifeNet Health

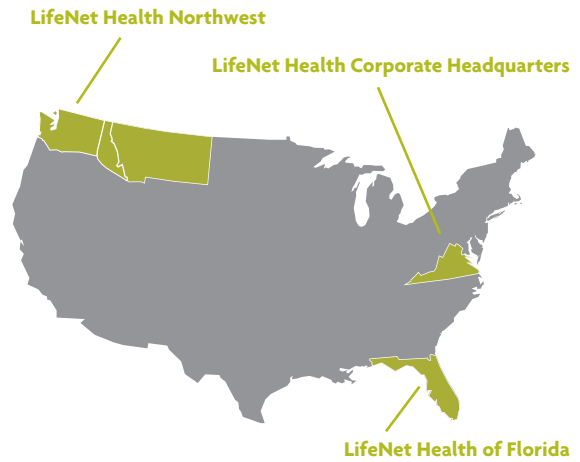
Saving Lives, Restoring Health, and Giving Hope is Our Business.

Since 1982, LifeNet Health has helped to save lives, restore health, and give hope to thousands of people each year. We are the world's most trusted provider of transplant solutions, from organ procurement to new innovations in bio-implant technologies and cellular therapies—a leader in the field of regenerative medicine, while always honoring the donors and healthcare professionals that allow the healing process.

Our full line of allograft bio-implants provides surgeons with the tools they need to improve the lives of patients. Furthermore, we provide exemplary service to clinicians and hospitals by making the finest quality allograft implants easily accessible. With LifeNet Health as your primary bio-implant supplier, you are investing in the best possible value to ensure the well being of your patients and the reputation of your hospital.

Every year LifeNet Health distributes over 400,000 allograft bio-implants to meet the urgent needs of hospitals and patients around the world. Our record of safety is unmatched. And our philosophy is simple: When partnering with a bio-implant supplier, your decision should not be based solely on fee, but rather on the overall value you and your patients expect and deserve.

At LifeNet Health, we deliver that value by excelling in four critical areas:



LifeNet Health Timeline


- 1982 Eastern Virginia Tissue Bank established.
- 1989 Eastern Virginia Tissue Bank becomes LifeNet.
- 1995 Allowash® cleaning technology introduced by LifeNet.
- PAD® Demineralization technology introduced by LifeNet.
- 2000 LifeNet merges with Virginia's Organ Procurement Agency.
- 2001 First VertiGraft® VG2® Cervical spine allograft bio-implant is implanted.
- 2006 LifeNet merges with Florida Tissue Services, Inc. to become LifeNet Health of Florida.
- 2007 LifeNet becomes LifeNet Health.
- Preservon® ambient storage, fully-hydrated preservation technology introduced by LifeNet Health.
- 2008 CardioGraft® Cardiac Patch with Matrancell® receives Food & Drug Administration (FDA) clearance.
- Skin & Wound Allograft Institute is established.
- OsteoCleanse® Autograft Cleaning System launched.
- 2009 LifeNet Health Regenerative Medicine Institute established.
- 2010 Record year in LifeNet Health allograft bio-implant distribution (over 300,000).
- ArthroFlex®, DermACELL® and Oracell® decellularized dermis is launched.
- 2012 Northwest Tissue Services merges with LifeNet Health to become LifeNet Health Northwest.


Osteobiologics


For any surgical application that requires Bone Void Filler

- Osteoconductive
- Osteoinductive potential
- Bio-compatible
- Sterile
- Malleable, elastic, compressible after hydration
- Hydrophilic- naturally absorbs bioactive fluids like blood, PRP, and BMA
- No carrier or fillers like those found in putties or gels
- Will not migrate


Demineralized Cancellous Sponge | FlexiGRAFT®

CUBES	Size	Freeze-Dried
	8 x 8 x 8 mm	BL-1100-001
	10 x 10 x 10 mm	BL-1100-003
	12 x 12 x 12 mm	BL-1100-002

STRIPS	Size	Freeze-Dried
	10 x 20 x 2 mm	BL-1300-001
	15 x 40 x 2 mm	BL-1300-002
	20 x 25 x 6 mm	BL-1300-003
	10 x 20 x 8 mm	BL-1300-004

CHIPS, 1 - 4 mm	Size	Freeze-Dried
	1 cc	BL-1200-001
	2.5 cc	BL-1200-002
	5 cc	BL-1200-003

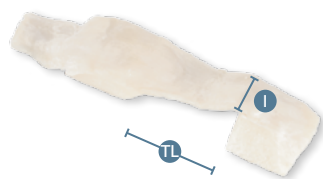
Demineralized Cortical Fibers | FlexiGRAFT®

FIBERS	Size	Freeze-Dried
	1 cc	BL-1000-001
	2.5 cc	BL-1000-002
	5 cc	BL-1000-003
	10 cc	BL-1000-004

Ligaments/Tendons

Patellar Ligaments | FlexiGRAFT®

Joins the tibia to the patella



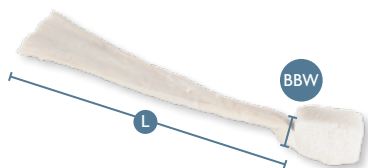
- Allows for bone-to-bone interface within tunnels
- Provided either whole, bisected or pre-shaped
- Tendon lengths vary

PATELLAR LIGAMENTS	Size	Frozen
BISECTED PATELLAR LIGAMENT	10 mm Min. Insertion Width	FBPL
BISECTED PATELLAR LIGAMENT W/SMALLER BLOCK	10 mm Min. Insertion Width	FBPLSB
WHOLE PATELLAR W/SMALLER BLOCK	20 mm Min. Insertion Width	FWPLSB
WHOLE PATELLAR LIGAMENT	20 mm Min. Insertion Width	FWPL
WHOLE PATELLAR W/EXTRA QUAD	20 mm Min. Insertion Width Quad Length > 6.0 cm	FWPLQ

PRE-SHAPED PATELLAR	Size	Frozen
	10 mm Diameter Dowel	FPL10
	11 mm Diameter Dowel	FPL11

Achilles Tendons | FlexiGRAFT®

Joins the calcaneus to the gastrocnemius muscle



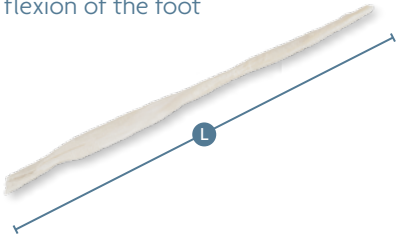
- Can be used for multi-ligament surgery
- Can be trimmed to accommodate surgical procedure
- Allows for bone to bone interface
- Provided either whole or pre-shaped

ACHILLES TENDON	Size	Frozen
W/OUT BONE BLOCK	> 160 mm	FAT
W/BONE BLOCK	> 160 mm	FATB

PRE-SHAPED ACHILLES	Size	Frozen
	10 mm Diameter Dowel	FATB10
	11 mm Diameter Dowel	FATB11

Tendons

Densely striated, extremely strong tendons responsible for flexion of the foot

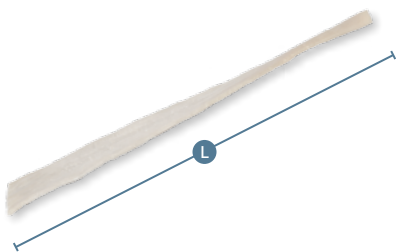


- Tunnel size can be predetermined
- Graft length for procedure can be predetermined
- Allows for various fixation techniques
- Available in short length configurations
- Diameters are measured as a double strand

Tibialis Tendons | FlexiGRAFT®

	Size	Frozen
ANTERIOR TIBIALIS TENDON: Short Length	Length 170 - 225 mm; Diameter 7.5 mm or >	FANT - SL
POSTERIOR TIBIALIS TENDON: Short Length	Length 170 - 225 mm; Diameter 7.5 mm or >	FPOST - SL
ANTERIOR TIBIALIS TENDON	Min. Length 230 mm; Min. Diameter 7.5 mm or >	FANT/TIB/T
POSTERIOR TIBIALIS TENDON	Min. Length 230 mm; Min. Diameter 7.5 mm or >	FPOST.TIBIAL

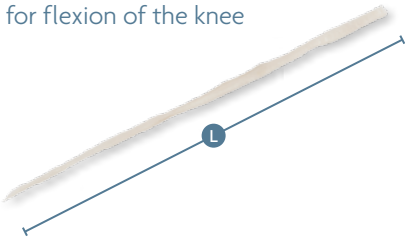
Peroneus Tendons | FlexiGRAFT®



	Size	Frozen
PERONEUS LONGUS TENDON: Short Length	Length 170 - 225 mm; Diameter 7.5 mm or >	FPLT - SL
PERONEUS LONGUS TENDON	Min. Length 230 mm; Min. Diameter 7.5 mm or >	FPLT

Tendons

Hamstring tendons responsible for flexion of the knee

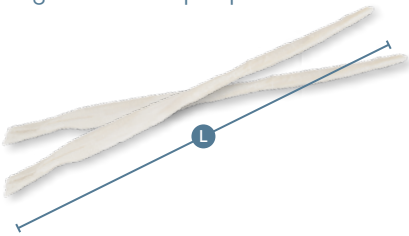


- ACL/PCL reconstruction
- Soft tissue applications
- Tendon-to-bone interface in femoral and tibial tunnel
- Diameter size of tunnels and length can be predetermined by physician
- Allows for various fixation techniques
- Diameters are measured as a double strand (except for FSTP)

Hamstrings | FlexiGRAFT®

	Size	Frozen
SEMI-TENDINOSUS TENDON	Length 150 mm or > ; Diameter 4 - 5.5 mm	FROPE
SEMI-TENDINOSUS TENDON OR GRACILIS TENDON	Length 160 - 180 mm; Diameter 4 - 6 mm	FSTP
GRACILIS TENDON	Min. Length 230 mm; Min. Diameter 4.0 mm or >	FGRACILIS
SEMI-TENDINOSUS TENDON	Min. Length 230 mm; Min. Diameter 4.0 mm or >	FST

Two Posterior/Anterior/Peroneus Longus Tendons per pack



- Allows for tendon to bone interface
- ACL/PCL reconstruction
- Pre-sized

Double Bundle Non-Bone Tendons | FlexiGRAFT®


	Size	Frozen
2 Posterior/Anterior/Peroneus Longus	Min. Length 230 mm; Min. Diameter 7.5 mm or >	FDBLTEND

Constructs

KINETIGRAFT® | FlexiGRAFT®

Load-bearing composite allograft bio-implant composed of two looped, semitendinosus and/or gracilis tendons sutured to two cancellous bone dowels with Arthrex® #2 FiberWire®

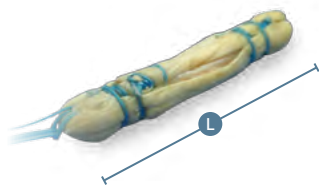
- Allows for bone to bone interface
- ACL/PCL reconstruction
- Pre-sutured and pre-sized

	Size	Frozen
	Min. Length = 80 - 90 mm; Min. Diameter = 9.5 - 10.5 mm	FKG10

GRAFTLINK® | FlexiGRAFT®

A preconstructed allograft tendon designed to be used with the GraftLink All-Inside® ACL technique and TightRope implants by Arthrex®


- Pre-assembled with Arthrex® #2 FiberWire®
- ACL reconstruction
- Pre-sutured and pre-sized

	Size	Frozen
	Length 60 - 80 mm; Diameter 7.5 - 10.5 mm	FGL

Lateral Ankle | FlexiGRAFT®

A pre-sutured, pre-sized allograft tendon designed to be used for lateral ankle reconstruction

- Pre-sutured with Arthrex #2 FiberWire
- Compatible with Arthrex's lateral ankle reconstruction technique.

	Size	Frozen
	Length 155 +/- 5 mm Diameter 4 - 5 mm	FPSST

KINETIGRAFT, GRAFTLINK and Lateral Ankle are not approved for use in Canada.

We offer you knowledgeable service professionals who are committed to providing technical expertise and ongoing, responsive support. We'll also partner with you to help you stay on schedule. It's all part of the LifeNet Health experience.



Soft Tissue

Decellularized Dermis | ArthroFLEX®



Acellular bio-implant for soft tissue applications

- Rotator cuff and tendon applications
- Retains native growth factors, collagen and elastin*
- ≥ 97% donor DNA removed for biocompatibility
- Room temperature storage for excellent handling and minimal prep time
- Sterile (10⁻⁶ Sterility Assurance Level)

* Data on file at LifeNet Health, Virginia Beach, VA.



0.5 mm (Thickness = 0.3 mm - 1.0 mm)	Size	Room Temperature
	30 x 40 mm	AFLEX500

1.0 mm (Thickness - 0.76 mm - 1.24 mm)	Size	Room Temperature
	40 x 40 mm	AFLEX400
	40 x 70 mm	AFLEX401

1.5 mm (Thickness = 1.26 mm - 1.74 mm)	Size	Room Temperature
	35 x 35 mm	AFLEX100
	40 x 70 mm	AFLEX101
	50 x 90 mm	AFLEX103
	15 x 140 mm	AFLEX150

2.0 mm (Thickness - 1.76 mm - 2.24 mm)	Size	Room Temperature
	35 x 35 mm	AFLEX200
	40 x 70 mm	AFLEX201

2.0 mm (Thickness = 1.76 mm - 2.24 mm)	Size	Room Temp
BioWasher™, 2 pack	10 x 14 mm	AFLEX822

3.0 mm (Thickness = 2.5 mm - 3.5 mm)	Size	Room Temp
THICK	40 x 70 mm	AFLEX301

Fresh Osteochondral Grafts

- Repair of articular cartilage and subchondral bone defects
- Stored at 1-10 degrees Celsius in nutrient rich media
- Custom/special grafts also available

Fresh osteochondral allografts are used for repair of articular cartilage and subchondral bone defects. Fresh grafts are available on a special order basis only. Please contact LifeNet Health Client Services at 1-888-847-7831 for special ordering and processing procedures.

Order Code	Product Description	Tissue Type
ATL80	Ankle Talus (Left)	FSH
ATR80	Ankle Talus (Right)	FSH
FCA80	Fem Condyle Hemi (Left Lateral)	FSH
FCB80	Fem Condyle Hemi (Left Medial)	FSH
FCC80	Fem Condyle Hemi (Right Medial)	FSH
FCD80	Fem Condyle Hemi (Right Lateral)	FSH
FCL80	Fem Condyle Whole (Left)	FSH
FCR80	Fem Condyle Whole (Right)	FSH
FHL80	Femoral Head (Left)	FSH
FHR80	Femoral Head (Right)	FSH
HHL80	Humeral Head (Left)	FSH
HHR80	Humeral Head (Right)	FSH
TDL80	Tibia Distal (Left)	FSH
TDR80	Tibia Distal (Right)	FSH
TFL80	Tibial Plateau with Meniscus (Left)	FSH
TFR80	Tibial Plateau with Meniscus (Right)	FSH
PAL80	Patella bone with Attachments (Left)	FSH
PAR80	Patella bone with Attachments (Right)	FSH
PCA80	Partial Condyle (Left Lateral)	FSH
PCB80	Partial Condyle (Left Medial)	FSH
PCC80	Partial Condyle (Right Medial)	FSH
PCD80	Partial Condyle (Right Lateral)	FSH
FTR80	Femoral Trochlea (Right)	FSH
FTL80	Femoral Trochlea (Left)	FSH
FTD80	Bi-Compartment (Right Lateral & Trochlea)	FSH
FTC80	Bi-Compartment (Right Medial & Trochlea)	FSH
FTA80	Bi-Compartment (Left Lateral & Trochlea)	FSH
FTB80	Bi-Compartment (Left Medial & Trochlea)	FSH

Other Grafts

Meniscus | FlexiGRAFT®

Stabilizes function of the ligaments and act as spacers between the femur and tibia

- Physician can match meniscus to the patient
- Allows for various surgical techniques

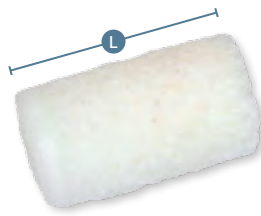


	Size	Frozen
	Left Lateral Meniscus (Varies)	FMN LL
	Left Medial Meniscus (Varies)	FMN LM
	Right Lateral Meniscus (Varies)	FMN RL
	Right Medial Meniscus (Varies)	FMN RM

Cancellous Plugs | FlexiGRAFT®

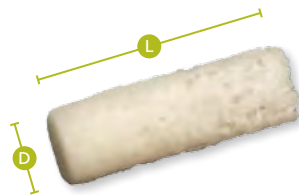
Cancellous dowel with or without nonviable cartilage

- To be used for back-fill autologous implant procedures
- 16 mm length



WITH CARTILAGE	Diameter	Frozen
	7 mm	FCPD7
	8 mm	FCPD8
	9 mm	FCPD9
	10 mm	FCPD10
	11 mm	FCPD11

WITHOUT CARTILAGE



WITHOUT CARTILAGE	Diameter	Preservon
	6 mm	PCPD6
	7 mm	PCPD7
	8 mm	PCPD8
	9 mm	PCPD9
	10 mm	PCPD10
	11 mm	PCPD11

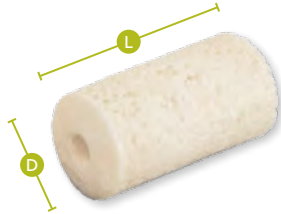
Other Grafts

Revision Dowels | FlexiGRAFT®

Cancellous Dowel to backfill tunnels created during ACL/PCL revision procedures

- Does not have cartilage
- Has set-pin for guide wire

Standard Length 25 - 29 mm



Diameter

Preservon

10 mm

PRD10

11 mm*

PRD11

12 mm

PRD12

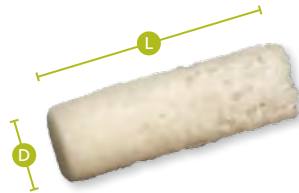
13 mm

PRD13

14 mm

PRD14

Extra Long Length 30 - 35 mm



Diameter

Preservon

10 mm

PRDXL10

11 mm*

PRDXL11

12 mm

PRDXL12

13 mm

PRDXL13

14 mm

PRDXL14

* Does not have set-pin

Ordering LifeNet Health Allograft Bio-Implants

Health care facilities, approved distributors and authorized tissue dispensing intermediaries are permitted to order allograft bio-implants from LifeNet Health. Only licensed clinical professionals may actually transplant tissue.

Orders may be placed by e-mail, phone and/or fax or e-mail at orders@lifenethealth.org. A valid purchase order number must be provided for all orders. All phone calls to LifeNet Health's Client Services department are recorded for quality control purposes.

Title to LifeNet Health products passes from LifeNet Health to the customer once the shipment leaves our facility.

Free Next-Day Delivery

All Fresh Osteochondral Bio-Implants are shipped on wet ice in a validated 72 hour shipper overnight to arrive by 10:30am free of charge (UPS or FedEx). Any Fresh grafts shipped by special courier may incur additional charges.

All frozen bio-implants are shipped overnight to arrive by 10:30am free of charge.

Free 3 Day Select Delivery*

All freeze dried bio-implants are shipped 3 Day for delivery by 5pm, free of charge.

For all other freeze dried bio-implant orders, the following methods are also available for a fee:

UPS/FedEx EAM: \$40.00
UPS/FedEx ND Air: \$40.00
UPS/FedEx ND SVR: \$35.00
UPS/FedEx 2nd Day Air: \$28.00

Fresh Storage Requirements

Grafts must be stored at 1°C to 10°C, in a refrigerator. DO NOT FREEZE.

Early AM Delivery

LifeNet Health requires a \$35.00 surcharge for any Early AM (before 10:30am) shipment. Additional charges may apply.

* Free 3 Day Select Delivery does not apply to Fresh Osteochondral Bio-Implants"

Return Policy**

LifeNet Health allows for the return of unused allograft bio-implants, 90 days from the date of purchase as long as specific criteria have been met. For information about returning allograft tissue, please contact LifeNet Client Health Services at (888) 847-7831 or refer to LifeNet Health's Return Policy for specific guidelines.

Payment Terms and Conditions

Payments are due 30 days from the invoice date unless otherwise stated. Payments are due in US dollar only. Allowable forms of payment are: Company Check, Visa/MasterCard, ACH, or wire transfer. Account statements are sent monthly to all accounts as a reminder of outstanding payments due. For any payment questions or information please call 1-757-464-4761 ext. 4444 or e-mail at: accountsreceivable@lifenethealth.org

Please Mail All Payments To:

LifeNet Health
P.O. Box 79636
Baltimore, MD 21279-0636

** Due to their short expiration period, Fresh grafts are non-returnable.

LifeNet Health Vendor Information

Company:

LifeNet Health, Inc.
1864 Concert Drive
Virginia Beach, VA 23453

Toll Free Phone: 888-847-7831
757-464-4761 ext. 2000 (OUS)

Toll Free Fax: 888-847-7832
757-301-6579 (OUS)

Email: orders@lifenethealth.org

Summary Of LifeNet Health Accreditations/Certifications

- ✓ AATB ACCREDITATION
- ✓ FDA REGISTRATION
- ✓ UNOS MEMBER
- ✓ AOPO MEMBER
- ✓ ISO 13485 CERTIFIED
- ✓ CLIA CERTIFIED
- ✓ LICENSED IN REQUIRED STATES
- ✓ HEALTH CANADA CTO 10038



Experience

With 30 years of experience to run with, close to three million allograft bio-implants provided and top-rated technology to back it all up, LifeNet Health proudly takes the industry lead. In fact, our allograft bio-implants are proven in more applications than any other.

LifeNet Health Bio-Implants Division is a leader in the engineering and processing of dental, cardiovascular, spinal and orthopedic bio-implants and distributes more than 450,000 bio-implants every year to restore health to patients around the world.

LifeNet Health Foundation is dedicated to raising and directing funds to support the donation process in the communities we serve.

LifeNet Health Transplant Services Division is a leading, federally designated Organ Procurement Organization that coordinates the recovery and transplant of organs in Virginia, offers a comprehensive program of bereavement support for donor families, and educates the public about donation.

LifeNet Health Tissue Services Division is dedicated to training, educating and maintaining relationships with more than 55 partners in order to promote donation in their respective communities.

LifeNet Health International Division is dedicated to the development and management of international partners and customers.

LifeNet Health of Florida is a division dedicated to the recovery of tissue in Northern Florida, improving the awareness of tissue donation and educating the public about donation in the Northern Florida Community.

LifeNet Health Northwest is a full-service tissue recovery, processing and distribution division of LifeNet Health based in Renton, Washington.

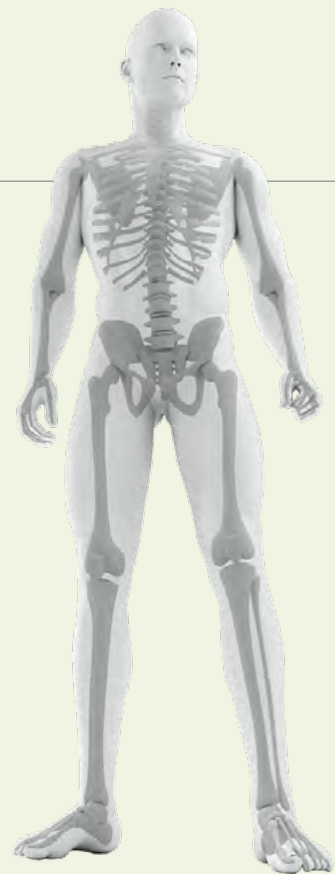
Skin and Wound Allograft Institute (SWAI) was established to ensure the processing and delivery of skin allograft bio-implants for U.S. burn centers.

LifeNet Health Institute of Regenerative Medicine develops novel regenerative approaches and products derived from donor tissues and organs. It embodies a convergence of stem cell therapies, tissue engineering, drug delivery, and existing tissue reconstruction and replacement methods.

In addition to our
**30 years OF
Experience,**

LifeNet Health:

- Has the longest-running AATB certification.
- Is the first organization of its kind to be ISO certified.
- Has strategic partnerships with leading healthcare organizations.



LifeNet Health and Arthrex
helping people to
Live On+



Live On+ is LifeNet Health's way to honor those that have made the selfless choice of donation as well as to share the inspirational stories of those that have been affected by those donated gifts.

Jay received a tissue donation that enabled him to continue to spend quality time with his daughter – something that he had resigned himself to never be able to do again.

See Jay's story – and the stories of other recipients and donor families – by visiting [YouTube.com/LNHealth](https://www.youtube.com/LNHealth)

Sports Medicine

Allograft Bio-Implant Solutions



LifeNet Health:

A Global Leader in Regenerative Medicine

LifeNet Health helps to save lives, restore health and give hope to thousands of patients each year. We are the world's most trusted provider of transplant solutions, from organ procurement to new innovations in bio-implant technologies and cellular therapies—a leader in the field of regenerative medicine, while always honoring the donors and healthcare professionals that allow the healing process.

1864 Concert Drive
Virginia Beach, VA 23453
1-888-847-7831 (US & Canada)
1-757-464-4761 ext. 2000 (OUS)
www.LifeNetHealth.org

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