

The Future of Healing - Embracing Regenerative Medicine

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Introduction

- ▶ Why regenerative medicine is essential for modern healthcare practices.
- ▶ Limitations of traditional medicine: Treating symptoms rather than root causes.
- ▶ Regenerative therapies: Enhancing the body's natural healing processes.
- ▶ Fits perfectly into a modern chiropractic office as we all believe the body can heal itself.
- ▶ Discuss the different "tools in the toolbox".
- ▶ Share the protocols and pricing I use in my facilities.

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Peptides-What are they?

- ▶ Small chains of amino acids "less than 50" that act as signaling molecules, hormones or neurotransmitters.
- ▶ Help to regulate biological processes like metabolism, immune responses, and cell communication.

They're like short instructions that tell your cells what to do—kind of like a text message instead of a whole book, which is more like a protein.

Now, depending on what's going on with you, we might use peptides to help out. For example, if your blood sugar level is elevated there's a peptide called insulin that tells your cells to soak up sugar from your blood. Or if you're healing from an injury, some peptides can signal your skin or tissues to repair faster. They're really specific, so they can target just the right spot without messing with everything else.

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Healing and Anti Aging Peptides

- ▶ BPC-157: Promotes angiogenesis, reduces inflammation/modulates cytokines, heals leaky gut by sealing tight junctions.
- ▶ GHK-Cu: Enhances collagen production, reduces oxidative stress.
- ▶ NAD+: Boosts mitochondrial function, DNA repair (Human trials show improved energy and cognitive function) Mitochondrial function is essential for healing "sick cells don't heal". Mitochondrial dysfunction causes nerve death in neuropathy.
- ▶ KPV: Modulates immune response, reduces inflammation (Extremely effective in autoimmune related cytokines).
- ▶ Glutathione: Known as the Master Anti Oxidant. Neutralizes reactive oxygen species (ROS) and free radicals, thereby safeguarding cellular components from oxidative damage.
- ▶ TB500/Thymosin Beta-4 : Actin Regulation, promotes cell migration, promotes angiogenesis, reduces inflammation/modulates cytokines, stimulates the production of T-cells, enhancing immune response.

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Iontophoresis - Superior Peptide Delivery

- ▶ Definition: Non-invasive, sustained delivery through electric current.
- ▶ Prescription only
- ▶ Push Patch technology: Controlled release over 12-14 hours.
- ▶ Advantages over injections: Steady blood levels, improved patient compliance.
- ▶ Superior for molecules with short half lives.
 - ▶ BPC157 - 3 to 4 hours
 - ▶ NAD+ - 1 to 2 hours
 - ▶ Glutathione - 10 to 15 minutes
 - ▶ GHK-Cu- 30 minutes
 - ▶ KPV- 30 minutes
 - ▶ TB500 - 24 Hours

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Joint Health and Pain Management

- ▶ A2M: Blocks cartilage-degrading enzymes (Stops arthritis at the molecular level).
- ▶ **Single-Spin PRP: No better than placebo. Restore Study using Regen Kits PRP devices.**
- ▶ **Ozone Therapy:** Reduces oxidative stress, improves blood flow (This functions as CPR for the cells and tissues).
- ▶ **Double-Spin PRP:** Enhanced platelet concentration, faster tissue repair (Clinical trials only support efficacy at 9 to 12 billion platelets).
- ▶ **Exosomes:** Vesicles secreted from the cells. Facilitate intercellular communication and promote tissue repair modulate immune response.
- ▶ **Umbilical cord tissue/Whartons Jelly:** Tissue repair, high concentration of hyaluronic acid, immune system modulation contains billions of exosomes.

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Clinical Benefits of A2M (Alpha-2- Macroglobulin)

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Mechanisms of Action of A2M

- ▶ A2M is a broad-spectrum protease inhibitor that neutralizes catabolic enzymes (MMPs, ADAMTS) responsible for cartilage degradation.
- ▶ Reduces inflammation by inhibiting cytokines (TNF- α , IL-1 β , IL-6).
- ▶ Promotes cartilage preservation and prevents degeneration in osteoarthritis and joint injuries.
- ▶ Reduces neuropathic pain by blocking pro-inflammatory mediators.

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Clinical Benefits of Ozone

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Mechanisms of Action of Ozone Injections

- Ozone stimulates oxidative preconditioning via NRF2 activation, increasing antioxidant enzymes (glutathione, SOD, catalase).
- Modulates inflammation by reducing pro-inflammatory cytokines (TNF- α , IL-1 β) and boosting anti-inflammatory cytokines (IL-10).
- Enhances oxygen delivery to tissues, promoting ATP production and mitochondrial function.
- Promotes microcirculation and angiogenesis by stimulating nitric oxide (NO) production.
- Exhibits antimicrobial effects, useful in infected or chronic non-healing wounds.

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Clinical Benefits and Evidence

- Reduces chronic pain and inflammation in musculoskeletal conditions (e.g., osteoarthritis, tendonitis).
- Accelerates tissue repair and wound healing.
- Enhances mitochondrial health and energy production.
- Effective in treating neuropathy and autoimmune conditions due to immune modulation.

Supporting Studies:

- Bocci et al. (2005): Demonstrated anti-inflammatory and analgesic effects in osteoarthritis patients.
- Smith et al. (2017): Ozone therapy reduced pain scores in chronic tendon injuries.
- Riva et al. (2020): Improved peripheral neuropathy symptoms and nerve conduction with ozone injections.

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Clinical Benefits of Double-Spin PRP

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Mechanisms of Action of PRP

- ▶ Double-spin technique increases platelet concentration (9-12x baseline).
- ▶ Growth factors (PDGF, TGF- β , VEGF, EGF) promote tissue repair.
- ▶ Reduced red blood cells and leukocytes minimize inflammation "with proper filtration"
- ▶ Optimal platelet activation improves healing responses.
- ▶ **Not all PRP is the same!**
- ▶ Single spin 1.3x to 1.7x platelet concentration
- ▶ Double spin 9x to 12x platelet concentration.
- ▶ The largest study ever completed on PRP was the Restore study. It found single spin PRP was no better than placebo. *Regen Labs kits used.*

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Clinical Benefits and Evidence

- ▶ Clinical Benefits:
 - ▶ - Accelerates tissue healing in tendons, muscles, and joints.
 - ▶ - Reduces pain and inflammation
 - ▶ - Effective for osteoarthritis, tendinopathy, and aesthetics.
- ▶ Supporting Studies:
 - ▶ - Mishra et al. (2009): Superior for chronic tendinopathy.
 - ▶ - Filardo et al. (2011): Improved knee osteoarthritis outcomes.
 - ▶ - Cervellin et al. (2020): Enhanced muscle injury healing.

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Clinical Benefits of Exosomes

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Mechanisms of Action of Exosomes

- Exosomes are extracellular vesicles containing proteins, lipids, mRNA, miRNA, and cytokines.
- They facilitate intercellular communication and promote tissue repair by transferring bioactive molecules.
- Anti-inflammatory properties: Reduce pro-inflammatory cytokine expression (TNF- α , IL-6) while boosting anti-inflammatory factors (IL-10).
- Stimulate tissue regeneration: Enhance collagen synthesis, reduce fibrosis, and support angiogenesis.
- Modulate immune responses: Reduce autoimmune activity and promote regulatory T-cell function.

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Clinical Benefits and Evidence

- Accelerates healing in musculoskeletal injuries (tendons, ligaments, cartilage).
- Reduces inflammation and pain in degenerative joint conditions.
- Enhances skin rejuvenation and repair in aesthetic applications.
- Supports neuroregeneration in brain injury and neurodegenerative diseases.

Supporting Studies:

- Zhang et al. (2019): Exosomes improved cartilage regeneration in osteoarthritis.
- Kim et al. (2021): Enhanced nerve recovery in peripheral neuropathy with exosome therapy.
- Yang et al. (2022): Reduced inflammation and improved wound healing in diabetic ulcers.

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Clinical Benefits of Umbilical Cord Tissue/Wharton's Jelly

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Mechanisms of Action of Wharton's Jelly

Rich source of mesenchymal stem cells (MSCs) and extracellular matrix (ECM) components.

Promotes tissue regeneration by delivering growth factors (TGF- β , IGF-1, FGF) and anti-inflammatory cytokines.

Enhances cartilage repair through chondrogenic differentiation.

Supports angiogenesis and microcirculation, aiding in tissue healing and reducing fibrosis.

Modulates immune responses, reducing chronic inflammation in degenerative conditions.

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Clinical Benefits and Evidence

- Regenerates damaged tissues, especially in orthopedic and soft tissue injuries.

- Reduces inflammation and promotes pain relief in osteoarthritis.

- Enhances wound healing and minimizes scar formation.

Supporting Studies:

- Murphy et al. (2015): Wharton's Jelly-derived MSCs improved joint function in OA patients.

- Riordan et al. (2018): Significant pain reduction and cartilage regeneration in knee OA.

- Cosenza et al. (2020): Reduced inflammatory markers and enhanced tissue repair in musculoskeletal injuries.

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Advanced Therapies for Brain Trauma, Chronic Illness, and Neuropathy

- ▶ Integrating peptides, autologous, and birth tissue products.

- ▶ Wharton's Jelly: MSC-rich, promotes tissue repair (Clinical studies support cartilage regeneration).

- ▶ Exosomes: Reduce inflammation, promote neuroregeneration (Research highlights neuroprotective effects).

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Joint Rejuvenation Package

#1 A2M with Bio Scaffolding + Umbilical Cord Allograft with Bio Scaffolding + Ozone Injection Package

- ▶ 1 A2M Procedure with Bio Scaffolding = \$3,495
- ▶ 1 Umbilical Cord Allograft Procedure with Bio Scaffolding = \$3,495
- ▶ 1 Super Vesicle ESC IV Infusion = \$2,000
- ▶ 2 Ozone Injections = \$500
- ▶ BPC157 and NAD+ Iontophoresis Patches (12 doses) = \$800
- ▶ FRC Rehab = \$495
- ▶ Total Value = \$10,785
- ▶ PIF Discount 30% = \$7,549.50

Satisfaction Guaranteed-If not completely satisfied a second round of Allograft for no charge.

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Spinal Rejuvenation Package

24 Visit Spinal Rejuvenation Package

- 24 Treatments of NSSD = \$3,600
- 1 Umbilical Cord allograft Injection with Bio Scaffolding = \$3,495
- 1 Super Vesicle ESC IV = \$2,000
- BPC157, NAD+, GHK-Cu Iontophoresis Patches (12 treatments) = \$400
- Total Value = \$9,495
- PIF Discount 30% = \$6,646.50

40 Visit Spinal Rejuvenation Package

- 40 Treatments of NSSD = \$6,000
- 1 Umbilical Cord Allograft with Bio Scaffolding Injection = \$3,495
- 1 Super Vesicle ESC IV infusion = \$2,000
- BPC157 and NAD+ Iontophoresis Patches (12 treatments) = \$400
- Total Value = \$11,895
- PIF Discount 40% = \$7,137

Satisfaction Guaranteed-If not completely satisfied a second round of Umbilical Cord Allograft for no charge.

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Nerve Rejuvenation Program

Phase 1 (Weeks 1 through 8).

- 16 TESLA Sessions (2 x/ week for 8 weeks). \$2400
- 1 Umbilical Cord Allograft with Bio Scaffolding (Week 1). \$3,495
- 1 Super Vesicle ESC IV Infusion \$2,000
- 3 Ozone Injections (Weeks 3, 5, 7). \$750
- 1 Nerve Beam Pro (Home use device). \$295
- 16 BPC157, NAD+, GHK-Cu Iontophoresis Treatments (2 treatments per week). \$533

Phase 2

- 1 Umbilical Cord Allograft injection with Bio Scaffolding. \$3,495
- 8 TESLA Sessions (2x/month for 4 months). \$1,200
- 16 BPC157, NAD+, GHK-Cu treatments (1 treatment per week). \$533

Total Value = \$14,704

PIF package discount of 40% = \$8,822.

Satisfaction Guaranteed-If not completely satisfied a second round of Umbilical Cord Allografts for no charge.

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Compliance and Regulations

- ▶ FDA and FTC guidelines: What providers need to know.
- ▶ Legal use: Informed consent, no exaggerated marketing claims.
- ▶ Practical compliance strategies.

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Call to Action

- ▶ Integrate regenerative medicine into your practice.
 - ▶ Think of this as another modality to expand your practice "part time provider".
- ▶ Educate patients on the benefits of addressing root causes. "Traditional medicine does not offer this".
- ▶ Contact us for guidance on implementation.
- ▶ Dr. Buzz Korth 614.562.9110 or Email Drbuzzk@gmail.com

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Q&A

- ▶ Open discussion on practical application and patient outcomes.
- ▶ Recap key takeaways and next steps.
- ▶ Resources for continued education and compliance updates.

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