

# Why All Regenerative Therapies Are Not Alike

Regenerative Medicine Therapies are diverse. It is important to understand these differences.

 by Dr. Mark Sanna



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# Cost Differences in Therapies


**Multiple Factors**

Effectiveness and cost can range significantly. This depends on many different factors.

**No Two Situations Alike**

No two situations are the same. Therapies must be tailored for each case.

## TAILOR FITTING



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# Key Factors: Cost & Effectiveness

1

**Stem Cell Type**  
The type of stem cells used is key. Some cell types are more effective.

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**Stem Cell Quality**  
Quality matters. Are cells viable and regulated?

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**Stem Cell Quantity**  
How many stem cells are needed? Dosage is important for success.

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## Stem Cell Source

**Bone Marrow**

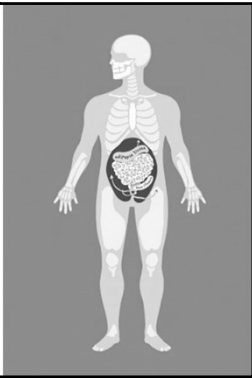
Bone marrow is a common source.

**Adipose Tissue**

Adipose tissue, or fat, is another source.

**Umbilical Cord**

Umbilical cord stem cells are also used.



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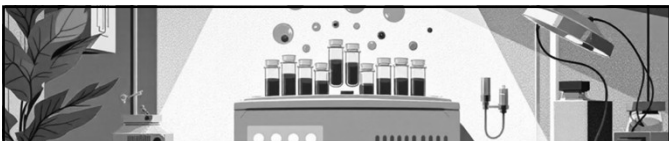
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## Concentration Matters

**Single Spin**

Single spin PRP has a lower concentration.

**Double Spin**

Double spin PRP has a higher concentration.

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## The Role of Scaffolding

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**Support Structure**

Scaffolding provides support for cell growth.

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**Matrix Formation**

It aids in forming new tissue matrix.

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**Longevity**

Scaffolding can improve therapy longevity.

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### Patients Should Choose a Reputable Clinic

1 Qualified Providers

2 Trained in Regenerative Medicine

3 Trusted Sources

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### Avoid Low-Cost Traps

1 Beware Quick Solutions

2 Cheap is not Always Better

3 Prioritize Quality Care

Numerous clinics prey on desperate patients. Affordability should not be the primary concern. Patients should seek advice from qualified physicians only.

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### Questions to Ask

- 1 **Guiding Method?**  
What method do you use to guide injections?
- 2 **Experience?**  
What is your experience in the procedure?
- 3 **Technician?**  
Who will be performing the regenerative treatment?

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### Injection Guidance Method

**Precise Placement**  
Effectiveness requires precise placement. Guiding method is essential.

**Accurate Targeting**  
Choose clinics using fluoroscopic or ultrasound needle guidance. They pinpoint injections.

### KNEE JOINT INJECTION



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### Avoid Blind Injections

**Miss the Mark**  
Blind injections often miss the mark. This is true even for experienced physicians.

**Little to No Results**  
Without guidance, you could see little relief. Don't waste time and money.



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### Who Performs the Procedure?



Nurse Practitioners



Physician Assistants



Physician Specialists

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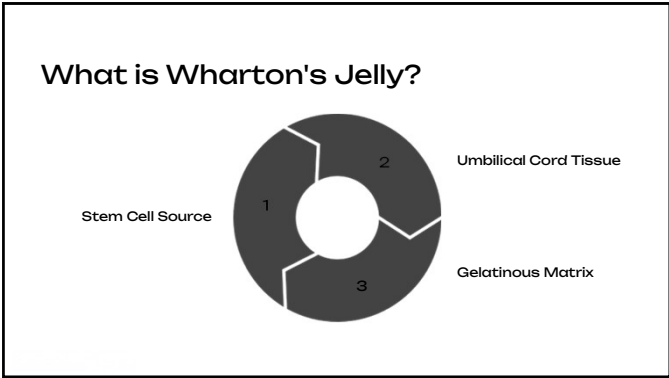
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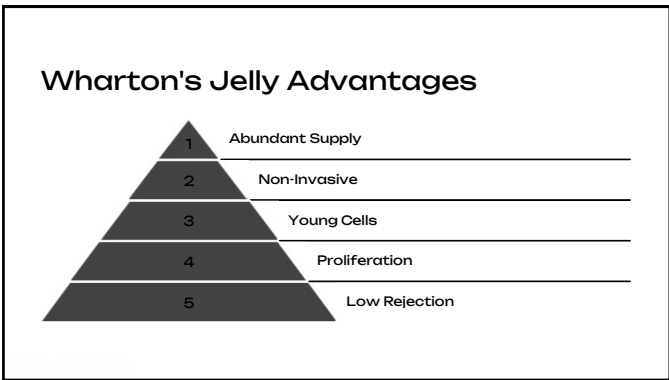
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### WJ for Providers

**Origin Matters**  
Ensure the source is reputable and has consent.

**Regulatory Rules**  
Stem cell products must comply with FDA rules.

**Characterization**  
WJ-MSCs need marker and viability checks.

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## Wharton's Jelly: Cryopreservation

**Storage Methods**  
Understand cryopreservation and thawing methods.

**Cell Viability**  
These affect cell viability and function post thawing.

### CRYOPRESERVATION OF CELLS



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## Patient Selection

**Consider Age**  
Age is an important consideration for WJ.

**Assess Condition**  
The patient's condition is key to success.

**Note Contraindications**  
Note all patient contraindications.



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## WJ: Follow-Up Protocols

1  
Long Term Monitoring  
Monitor patients long term.

2  
Assess Safety  
Assess long-term safety.

3  
Assess Efficacy  
Assess long-term efficacy.

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### PRP Therapy Differences

Single spin and double spin PRP protocols exist.  
They have distinct platelet concentrations and effectiveness levels.

### DOUBLE SPIN CENTRIFUGE

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### Platelet Concentration

1

Single Spin: Lower

2

Double Spin: Higher

### PLATELET CONCENTRATION

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### Single Spin Specifics

Category	Value
Concentration	1.5
Max Multiple	2.25

Single spin PRP yields lower platelet concentrations. Platelet concentration is 1.5 to 3 times higher. The concentration rarely exceeds 2x the baseline platelet count.

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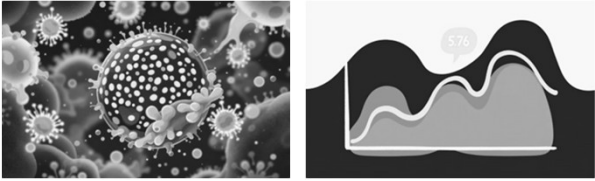
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## Double Spin Specifics



**5-8x Baseline**  
Platelet counts can reach 5 to 8 times baseline.

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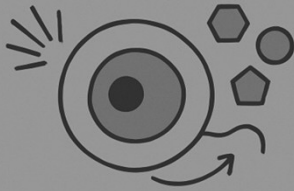
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## Effectiveness

**Growth Factors**  
PRP effectiveness links to platelet count.

**Bioactive Molecules**  
More platelets, more growth factors, better results.

## GROWTH FACTORS BIOACTIVE MOLECULES



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## Single Spin Effectiveness

- Faster, Cheaper**  
Single spin is faster and cheaper overall.
- Moderate Use**  
Good for moderate concentration needs.

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### Double Spin Benefits

<b>Higher Growth Factors</b> More effective with higher needs.	<b>Improves Outcomes</b> Potentially better patient outcomes overall.	<b>Purer PRP</b> Finer separation, purer PRP produced.
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### Single Spin Advantages

<b>Lower Cost</b> Lower cost overall to perform procedure.	<b>Faster Processing</b> Faster procedure with generally less time.
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### Double Spin: Efficiency

<b>1</b> <b>Higher Capture</b> More concentrated PRP produced.	<b>2</b> <b>Consistent Results</b> Less variation in platelet yield overall.
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### What is a PRP Kit?

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Specialized Device

PRP Preparation

Therapeutic Uses

A PRP kit prepares platelet-rich plasma. It is used for various therapies. The kits contain components needed.

PRP KIT



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### Kit Components

1

Blood Tubes


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Anticoagulant

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Centrifuge Tubes

PRP KIT



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### Standard Kits



**Not Made for Re-Injection**

Most kits use standard blood tubes. These are not for re-injection purposes.

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## Pyrogens and Silica

**Cytotoxic**  
Pyrogens and silica are cytotoxic. They hurt anabolic potential overall.

**Aesthetic Use**  
This may be acceptable for aesthetic applications.

# PYROGENS



# SILICA

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## Double Spin PRP Kits

1

**High Yield System**  
Each kit ensures a high platelet yield.

2

**7-11x Platelet Concentration**  
This provides 9-10 billion platelets per use.



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## Maximum Healing

**Bio Scaffolding**  
This helps with maximum healing desired.

**Slow Release**  
It has slow product release over time.

**Fewer Procedures**  
You do not have to perform repeat procedures.



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### PRP: No Irritants




#### More Platelets

You get more platelets from the kits.



#### Less Irritants

The kits contain less overall irritants.



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### PRP Summary

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#### Pyrogen, Silica Free

The kits are certified pyrogen and silica free overall.

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#### White Cell Filter

No pain caused by white cell contamination overall.

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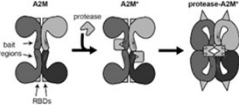
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### A2M: A Plasma Protein



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Liver Produced

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Protease Inhibitor

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Therapeutic Use

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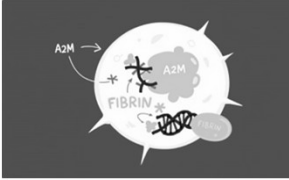
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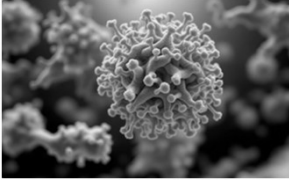
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### Biological Roles



**Antiprotease**  
A2M inhibits fibrinolysis and coagulation by neutralizing plasmin.



**Carrier Protein**  
It binds to various growth factors and cytokines too.

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### A2M Benefits

**1 Cartilage Shield**  
A2M protects joint cartilage overall.

**2 Anti-inflammatory**  
It is an anti-inflammatory ingredient.

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### A2M Injection

**Concentrated A2M**  
A2M from blood is concentrated during the procedure.

**Direct Injection**  
It is injected directly into the joints.



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## Rapid Pain Relief

**Inflammation**  
It is a way to reduce inflammation quickly.

**Slow Progression**  
Potentially slows joint degeneration.

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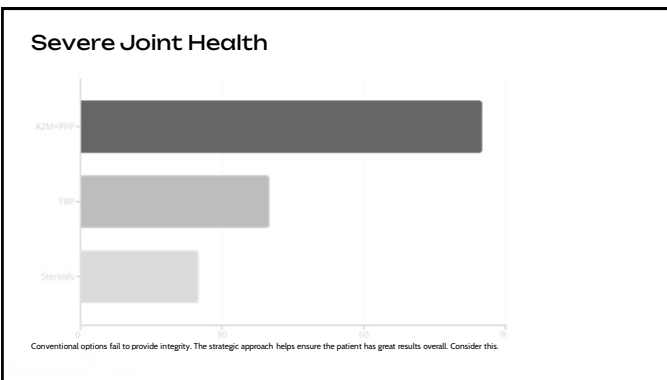
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## Severe Joint Health



Option	Value (approximate)
A2M+PPP	75
FFP	35
Steroids	20

Conventional options fail to provide integrity. The strategic approach helps ensure the patient has great results overall. Consider this.

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## Mechanisms of Action

**A2M Ultimate Protector**  
A2M stops cartilage loss by protecting destructive enzymes.

**Heated PPP**  
Heated PPP allows a growth factor matrix.

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## Regen Protocols are Better

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Long Term Healing

These protocols provide healing.

2

Standard Care

Make this the new standard overall.



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## Why All Regenerative Therapies Are Not Alike

In this presentation, we'll discuss differentiating factors. These factors impact effectiveness and pricing. Regenerative Medicine Therapies are diverse. It is important to understand these differences.

 by Dr. Mark Sanna



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