

Innovative Approach to Medicine





INTRODUCTION

As the American population ages, incidences of **osteoarthritis** are more commonly occurring. In fact, osteoarthritis affects more than **70% of adults between 55 and 78** in America. With osteoarthritis on the rise, it is even more imperative to come up with effective treatments that allow patients to resume their normal life routine.

Viscosupplements treat osteoarthritis by using **hyaluronic acid (HA)** to reduce inflammation and cartilage degeneration. **AQ Therapeutics' Joint Relief Solution (JXN)** is a viscosupplement that specifically uses high molecular weight HA and also combines **patented growth factor technology** to create a formulation that is effective in treating osteoarthritis.





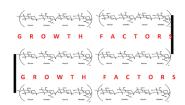
HIGH MOLECULAR WEIGHT HA VS. CROSS-LINKED HA

In cross-linked HA (Figure A), when the compound breaks down, small fragments are created, leading to further inflammation and degeneration. To prevent this issue, AQ Therapeutics uses high molecular weight HA (Figure B), which when broken down, create longer chains of HA (vs. shorter) and do not induce an inflammatory response. Additionally, these layers create a space for growth factors which contain anti-inflammatory cytokines that may possibly regenerate cartilage.

A.



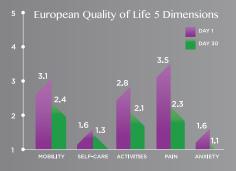
В.





IMPROVEMENTS AFTER USING AQ JXN

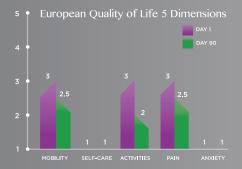
	4 mL Cytokines + 1% HA					
# of patients	24					
Mean Age	58.9					
Mean BMI	33.1					
Follow Up Date	@ 1 month					



The European Quality of Life 5 Dimensions scores for mobility, self-care, activities, pain, and anxiety decreased when assessed 1 month after AQ JXN injection.

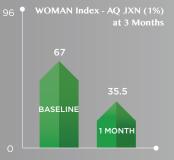


Patients' WOMAC score was 59.7 at baseline and decreased to 34.6 after 1 month of being injected with AQ JXN.





The European Quality of Life 5 Dimensions scores for mobility, self-care, activities, pain, and anxiety decreased when assessed 3 months after AQ JXN injection.





Patients' WOMAC score was 67 at baseline and decreased to 35.5 after 3 months of being injected with AQ JXN.

	4 mL Cytokines + 1% HA
# of patients	45
Mean Age	58
Mean BMI	32.9
Follow Up Date	@ 3 months

COMPARISON TO COMPETITORS

(BASED ON DATA OBTAINED FROM THEIR WEBSITES)



Unlike most injections on the market, patients injected w/ JXN aren't showing signs of increased pain, and even after over a year of being injected don't require a follow up injection.



	AQT JXN	Suparts FX	Hyalgan	Orthovisc	Euflexxa	Monovisc	Synvisc	Synvisc- One	Gel-One
HA Concentration	1%		1%	1%	1%	2.2%	0.8%	0.8%	1%
Dose per syringe	40 mg	25 mg	20 mg	30 mg	20 mg	88 mg	16 mg	48 mg	30 mg
Total Volume per syringe	4.0 mL	2.5 mL	2.0 mL	2.0 mL	2.0 mL	4.0 mL	2.0 mL	6.0 mL	3.0 mL
Injection Regimen	Single	3 or 5 weekly	3 or 5 weekly	3-4 weekly	3 weekly	Single	3 weekly	Single	Single
WOMAC % Improvement	44.5% at 1 month	52% at 3 months	37.5% at 6 months	51% of pts achieve 50% or greater at 5 months	62% at 3 months	46% at 6 months	52% at 6 months	40% at 6 months	40% at 3 months
Endotoxins	NONE detectable	0.5μg/mL	4.5μg/mL	N/A	N/A	N/A	7.5 µg/mL	7.5µg/mL	N/A

Based on this data, AQ JXN offers **many advantages** such as: single injection, longevity, no detectable endotoxins, improvement in pain scores and quality of life, and is one of the only viscosupplements that contain growth factors.

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