



OrthoWave

CELLULAR HEALING TECHNOLOGIES

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# COMPREHENSIVE MUSCULOSKELETAL PROTOCOL GUIDE

26 Conditions · Treatment Parameters · Clinical Guidelines

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FOOT & ANKLE

LOWER LEG

KNEE

HIP & PELVIS

SPINE & BACK

SHOULDER & ARM

HAND & WRIST

*Treatment settings should be adjusted based on patient tolerance,  
chronicity, body size, tissue depth, and device type.*

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For Licensed Healthcare Professionals Only · OrthoWave™ Elite Shockwave Protocol Manual

## About This Guide

This protocol guide provides comprehensive OrthoWave DualSync™ treatment parameters for 26 common musculoskeletal conditions organized by body region. Each protocol includes bar pressure, frequency, pulse count, session number, and recommended Dynamic Tissue Activation™ (DTA) pre-treatment settings.

**Clinical Note:** All parameters are starting guidelines. Always begin conservative and progress based on patient tolerance, chronicity, and tissue response. Acute conditions start lower. Chronic tendinopathies tolerate higher bars and pulse counts. Frequency: 1–2 sessions per week.

### COLUMN KEY

BAR	Hz	PULSES	SESSIONS	DTA SETTING
Pressure setting (start low, progress up)	Frequency (pulses per second)	Total pulses delivered per session	Recommended total treatment course	Dynamic Tissue Activation™ pre-treatment frequency & time

## FOOT & ANKLE

*Plantar Fasciitis · Achilles · Ankle · Calf · Shin Splints*

CONDITION	TREATMENT AREA	BAR	Hz	PULSES	SESSIONS	DTA SETTING
<b>Plantar Fasciitis</b>	Medial heel / plantar fascia	2.5–4.0	10–15	2000–4000	6–8	3 MHz · 3–4 min
<b>Achilles Tendinitis</b>	Achilles tendon	2.5–4.5	10–15	2000–3500	6–8	1 MHz · 4 min
<b>Ankle Sprain</b>	Lateral ankle ligaments	2.0–3.0	10–12	1500–2500	4–6	3 MHz · 3 min
<b>Calf Strain</b>	Gastrocnemius / Soleus	2.5–4.0	10–15	2000–3000	4–6	1 MHz · 4 min
<b>Shin Splints</b>	Tibialis anterior / posterior	2.0–3.5	10–15	2000–3500	6	1 MHz · 4 min

## KNEE

*Patellar Tendinitis · Quadriceps · IT Band Syndrome*

CONDITION	TREATMENT AREA	BAR	Hz	PULSES	SESSIONS	DTA SETTING
<b>Patellar Tendinitis</b>	Patellar tendon	2.5–4.5	10–15	2500–4000	6–8	3 MHz · 3–4 min
<b>Quadriceps Tendinitis</b>	Quadriceps tendon	2.5–4.0	10–15	2500–3500	6	1 MHz · 4 min
<b>IT Band Syndrome</b>	Lateral thigh	2.0–3.5	10–15	2000–3500	4–6	1 MHz · 4–5 min

## HIP & PELVIS

*Hamstring · Hip Bursitis · Piriformis · SI Joint*

CONDITION	TREATMENT AREA	BAR	Hz	PULSES	SESSIONS	DTA SETTING
<b>Hamstring Tendinopathy</b>	Hamstring origin	2.5–4.5	10–15	2500–4000	6	1 MHz · 5 min
<b>Hip Bursitis</b>	Greater trochanter	2.5–4.0	10–15	2000–3500	4–6	1 MHz · 4 min
<b>Piriformis Syndrome</b>	Piriformis muscle	2.5–4.0	10–15	2500–3500	4–6	1 MHz · 5 min
<b>SI Joint Pain</b>	Sacroiliac joint	2.0–3.5	10–15	2000–3000	4–6	1 MHz · 4 min

## SPINE & BACK

*Low Back Pain · Thoracic Tightness · Neck Pain*

CONDITION	TREATMENT AREA	BAR	Hz	PULSES	SESSIONS	DTA SETTING
<b>Low Back Pain</b>	Lumbar paraspinals	2.0–4.0	10–15	2500–5000	6–10	1 MHz · 4–5 min
<b>Thoracic Tightness</b>	Thoracic paraspinals	2.0–3.5	10–15	2000–3500	4–6	1 MHz · 4 min
<b>Neck Pain</b>	Cervical musculature	1.5–3.0	8–12	1500–2500	4–6	3 MHz · 3 min

## SHOULDER & ARM

*Frozen Shoulder · Rotator Cuff · Biceps · Tennis & Golfer's Elbow*

CONDITION	TREATMENT AREA	BAR	Hz	PULSES	SESSIONS	DTA SETTING
<b>Frozen Shoulder</b>	Capsule / rotator cuff	2.5–4.0	10–15	2500–4000	6–8	1 MHz · 4–5 min
<b>Rotator Cuff Tendinitis</b>	Rotator cuff	2.5–4.5	10–15	2500–4000	6–8	1 MHz · 4–5 min
<b>Shoulder Impingement</b>	Subacromial region	2.5–4.0	10–15	2500–3500	6	1 MHz · 4 min
<b>Biceps Tendinitis</b>	Bicipital groove	2.0–3.5	10–12	2000–3000	4–6	3 MHz · 3–4 min
<b>Tennis Elbow</b>	Lateral epicondyle	2.0–4.0	10–15	2000–3500	6–8	3 MHz · 3 min

<b>Golfer's Elbow</b>	Medial epicondyle	<b>2.0–4.0</b>	10–15	2000–3500	<b>6–8</b>	3 MHz · 3 min
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## HAND, WRIST & TMJ

*Carpal Tunnel · Wrist Tendinitis · Trigger Finger · Thumb · TMJ*

CONDITION	TREATMENT AREA	BAR	Hz	PULSES	SESSIONS	DTA SETTING
<b>Carpal Tunnel</b>	Wrist flexor retinaculum	<b>1.5–2.5</b>	8–10	1500–2500	<b>4–6</b>	3 MHz · 3 min
<b>Wrist Tendinitis</b>	Flexor / extensor tendons	<b>1.5–3.0</b>	8–12	1500–2500	<b>4–6</b>	3 MHz · 3 min
<b>Trigger Finger</b>	Flexor tendon sheath	<b>1.5–2.5</b>	8–10	1000–2000	<b>4</b>	3 MHz · 2–3 min
<b>Thumb Arthritis</b>	CMC joint	<b>1.5–2.5</b>	8–10	1000–2000	<b>4–6</b>	3 MHz · 2–3 min
<b>TMJ Dysfunction</b>	TMJ / masseter	<b>1.0–2.0</b>	6–8	1000–1500	<b>4–6</b>	3 MHz · 2–3 min

## GENERAL TREATMENT GUIDELINES

<b>01</b>	<b>Start Conservative</b>	Always begin at the lower end of the bar range and progress upward based on patient tolerance. Acute conditions require more conservative starting parameters than chronic.
<b>02</b>	<b>Chronic vs Acute</b>	Chronic tendinopathies generally tolerate higher bar settings and higher pulse counts. Acute presentations require lower bars, lower Hz, and fewer pulses per session.
<b>03</b>	<b>Applicator Movement</b>	Move the treatment head slowly in circular or linear motions over the target tissue. Slower movement = deeper penetration. Maintain constant applicator contact throughout.
<b>04</b>	<b>Dynamic Tissue Activation™</b>	Apply DTA pre-treatment at the frequency and duration listed. Apply shockwave immediately after — within 2 minutes — while tissue is warm and maximally receptive.
<b>05</b>	<b>Coupling Gel</b>	Apply coupling gel liberally for optimal acoustic energy transfer. Never treat without adequate gel coverage. Replenish gel between treatment zones as needed.
<b>06</b>	<b>Surrounding Tissue</b>	Always treat trigger points and the 2–3 cm of tissue surrounding the primary target zone. Surrounding tissue dysfunction significantly contributes to pain.
<b>07</b>	<b>Contraindications</b>	Avoid direct treatment over lungs, eyes, reproductive organs, active malignancy, acute fractures, pacemakers, blood clots, and open wounds or infections.
<b>08</b>	<b>Session Frequency</b>	Typical frequency is 1–2 sessions per week. Allow minimum 48–72 hours between sessions to allow the healing response to complete its initial phase.

**Important Clinical Notes:** These protocols are general clinical recommendations and may vary depending on the OrthoWave DualSync™ device settings, radial vs pseudo-focused application, patient body composition, chronicity of condition, and provider clinical judgment. Always follow OrthoWave device-specific safety recommendations and adjust parameters based on individual patient response. If patient experiences significant pain increase after treatment, reduce bar setting at next session.