# PODIATRY ULTRASOUND

# Injections

## Cortisone, HA, Prolotherapy, and PRP

PODIATRY ULTRASOUND

# FOOT & ANKLE: ANKLE JOINT

| | CORTISONE |
|---|---|
| **TIMING** | Not usually in first 6 weeks of pain |
| **OPTIMAL CANDIDATE** | Moderate symptoms (any stage OA) |
| **SUBOPTIMAL CANDIDATE** | Pt with prior cortisone injection to same area with pain relief < 4 weeks |
| **ANESTHETIC** | Lidocaine 1% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Into the skin and superficial muscles, right down to the talus until certain lidocaine is flowing along talar dome |
| **CORTISONE** | Triamcinolone 20mg or Methylprednisolone 20mg |
| • **SYRINGE** | 3mL filled with 1mL Lidocaine 1% |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Touching the cartilage of the talus |
| • **TOP TIPS** | |
| **POST PROCEDURE** | Follow up FOAS at 12 weeks |
| • **ORAL PAIN MEDS** | Acetaminophen is likely adequate |
| • **IMMOBILIZE** | No |
| • **RETURN TO ADLs** | Immediately |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | 2 weeks |
| **REPEAT TREATMENT** | Minimum 12 weeks interval |

| | HYALURONIC ACID |
|---|---|
| **TIMING** | Usually after DX cartilage injury/OA |
| **OPTIMAL CANDIDATE** | Mild symptoms without effusion |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• High grade OA<br>• Recurrent effusions |
| **ANESTHETIC** | Lidocaine 1% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 27g x 1.25" |
| • **TARGET** | Into the skin and superficial muscles, right down to the talus until certain lidocaine is flowing along talar dome |
| **HYALURONIC ACID** | 2mL, 3mL or 4mL |
| • **SYRINGE** | A full pre-filled syringe |
| • **NEEDLE** | 22g x 1.5" |
| • **TARGET** | Touching the cartilage of the talus |
| • **TOP TIPS** | Start the patient with a 2mL dose and see how they respond. |
| **POST PROCEDURE** | Follow up FOAS at 12 weeks |
| • **ORAL PAIN MEDS** | Acetaminophen is likely adequate |
| • **IMMOBILIZE** | No |
| • **RETURN TO ADLs** | Next day |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | 2 weeks |
| **REPEAT TREATMENT** | As early as 2 months if needed. Usually 3 - 6 months. |

| | PROLOTHERAPY |
|---|---|
| **TIMING** | Usually after DX cartilage injury/OA |
| **OPTIMAL CANDIDATE** | Mild symptoms without effusion |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• High grade OA<br>• Recurrent effusions |
| **ANESTHETIC** | Lidocaine 1% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 27g x 1.25" |
| • **TARGET** | Into the skin and superficial muscles, right down to the talus until certain lidocaine is flowing along talar dome |
| **PROLOTHERAPY** | 2mL Dextrose 50% +<br>2mL Lidocaine 1% = 25% Dextrose |
| • **SYRINGE** | 5mL with 4mL of 25% Dextrose |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Touching the cartilage of the talus |
| • **TOP TIPS** | Prolotherapy usually includes treatment the joint and most ligaments |
| **POST PROCEDURE** | Follow up FOAS q 4 weeks x 6 |
| • **ORAL PAIN MEDS** | Acetaminophen is likely adequate |
| • **IMMOBILIZE** | No |
| • **RETURN TO ADLs** | Next day |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | Must discuss progress with therapist |
| **REPEAT TREATMENT** | Repeat prolo q 4 weeks x 3 - 6 total |

| | PRP |
|---|---|
| **TIMING** | Usually after DX cartilage injury/OA |
| **OPTIMAL CANDIDATE** | Mild symptoms without effusion |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• High grade OA<br>• Recurrent effusions |
| **ANESTHETIC** | 1 part Lidocaine 1% + 9 parts Normal saline or simply use Ropivicaine 0.2% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 27g x 1.25" |
| • **TARGET** | Into the skin and superficial muscles, right down to the talus until certain lidocaine is flowing along talar dome |
| **PRP** | Leukocyte-Poor PRP (Yellow PRP)<br>Aim for 5 Billion Platelets |
| • **SYRINGE** | 5mL |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Touching the cartilage of the talus |
| • **TOP TIPS** | Inject maximum 6mL,<br>4mL is a common amount |
| **POST PROCEDURE** | Follow up FOAS q 4 weeks x 6 |
| • **ORAL PAIN MEDS** | Acetaminophen is likely adequate |
| • **IMMOBILIZE** | No |
| • **RETURN TO ADLs** | Next day |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | 2 weeks |
| **REPEAT TREATMENT** | Repeat PRP if needed after 8 weeks |

PODIATRY ULTRASOUND

# ANKLE: ANKLE LIGAMENTS (ATFL, AITFL)

| | CORTISONE |
|---|---|
| TIMING | |
| OPTIMAL CANDIDATE | Rarely used for this body part |
| SUBOPTIMAL CANDIDATE | |
| ANESTHETIC | |
| • SYRINGE | |
| • NEEDLE | |
| • TARGET | |
| CORTISONE | |
| • SYRINGE | |
| • NEEDLE | |
| • TARGET | |
| • TOP TIPS | |
| POST PROCEDURE | |
| • ORAL PAIN MEDS | |
| • IMMOBILIZE | |
| • RETURN TO ADLs | |
| • RETURN TO THERAPY | |
| • RETURN TO SPORT | |
| REPEAT TREATMENT | |

| | HYALURONIC ACID |
|---|---|
| TIMING | Anytime |
| OPTIMAL CANDIDATE | No tears and only mild thickening |
| SUBOPTIMAL CANDIDATE | • VAS > 7 / 10 with ADLs<br>• ATFL Complete Tear<br>• AITFL Thickening > 3mm |
| ANESTHETIC | Lidocaine 1% |
| • SYRINGE | 3mL |
| • NEEDLE | 27g x 1.25" |
| • TARGET | Into the skin and superficial fat, right down to the ligaments until certain lidocaine is flowing adjacent ligament |
| HYALURONIC ACID | 1-2mL of soft-tissue adapted HA |
| • SYRINGE | 1.2mL pre-filled syringe |
| • NEEDLE | 25g x 1.5" |
| • TARGET | Adjacent area of abnormality or pain |
| • TOP TIPS | This might mean spreading the HA around a few different areas |
| POST PROCEDURE | Follow up FOAS at 12 weeks |
| • ORAL PAIN MEDS | Acetaminophen is likely adequate |
| • IMMOBILIZE | No |
| • RETURN TO ADLs | Immediately |
| • RETURN TO THERAPY | 1 week |
| • RETURN TO SPORT | 2 weeks |
| REPEAT TREATMENT | Treatment is 2 injections, 7 days apart |

| | PROLOTHERAPY |
|---|---|
| TIMING | Not usually in first 6 weeks of pain |
| OPTIMAL CANDIDATE | No tears and only mild thickening |
| SUBOPTIMAL CANDIDATE | • VAS > 7 / 10 with ADLs<br>• ATFL Complete Tear<br>• AITFL Thickening > 3mm |
| ANESTHETIC | Lidocaine 1% |
| • SYRINGE | 3mL |
| • NEEDLE | 27g x 1.25" |
| • TARGET | Into the skin and superficial fat, right down to the ligaments until certain lidocaine is flowing into ligament |
| PROLOTHERAPY | 1mL Dextrose 50% +<br>3mL Lidocaine 1% = 12.5% Dextrose |
| • SYRINGE | 5mL with 4mL of 12.5% Dextrose |
| • NEEDLE | 25g x 1.5" |
| • TARGET | Into ligaments and around ligaments |
| • TOP TIPS | Inject maximum 2mL each ligament, 1.5mL is a common amount |
| POST PROCEDURE | Follow up FOAS q 4 weeks x 6 |
| • ORAL PAIN MEDS | Acetaminophen is likely adequate |
| • IMMOBILIZE | No |
| • RETURN TO ADLs | Next day |
| • RETURN TO THERAPY | 1 week |
| • RETURN TO SPORT | Must discuss progress with therapist |
| REPEAT TREATMENT | Repeat prolo q 4 weeks x 3 - 6 total |

| | PRP |
|---|---|
| TIMING | Not usually in first 6 weeks of pain |
| OPTIMAL CANDIDATE | No tears and only mild thickening |
| SUBOPTIMAL CANDIDATE | • VAS > 7 / 10 with ADLs<br>• ATFL Complete Tear<br>• AITFL Thickening > 3mm |
| ANESTHETIC | 1 part Lidocaine 1% + 9 parts Normal saline or simply use Ropivicaine 0.2% |
| • SYRINGE | 3mL |
| • NEEDLE | 27g x 1.25" |
| • TARGET | Into the skin and superficial fat, right down to the ligaments until certain lidocaine is flowing into ligament |
| PRP | Leukocyte-Poor PRP (Yellow PRP)<br>Aim for 2.5 Billion Platelets |
| • SYRINGE | 5mL |
| • NEEDLE | 25g x 1.5" |
| • TARGET | Into ligaments and around ligaments |
| • TOP TIPS | Inject maximum 2mL each ligament, 1.5mL is a common amount |
| POST PROCEDURE | Follow up FOAS q 4 weeks x 6 |
| • ORAL PAIN MEDS | Acetaminophen is likely adequate |
| • IMMOBILIZE | No |
| • RETURN TO ADLs | Next day |
| • RETURN TO THERAPY | 1 week |
| • RETURN TO SPORT | Must discuss progress with therapist |
| REPEAT TREATMENT | Repeat PRP if needed after 8 weeks |

PODIATRY ULTRASOUND

# FOOT & ANKLE: PLANTAR FASCIA

| | CORTISONE |
|---|---|
| **TIMING** | Not usually in first 6 weeks of pain |
| **OPTIMAL CANDIDATE** | Any tear / thickening |
| **SUBOPTIMAL CANDIDATE** | Pt with prior cortisone injection to same area with pain relief < 4 weeks |
| **ANESTHETIC** | Lidocaine 1% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Into the skin and superficial fat, right down to the calcaneus until certain lidocaine is flowing adjacent fascia |
| **CORTISONE** | Triamcinolone 20mg or Methylprednisolone 20mg |
| • **SYRINGE** | 3mL filled with 1mL Lidocaine 1% |
| • **NEEDLE** | 22g x 1.5" |
| • **TARGET** | Medial calcaneal tubercle (medial and deep to plantar fascia on the screen) |
| • **TOP TIPS** | Use Dexamethasone 5mg to reduce fat atrophy risk |
| **POST PROCEDURE** | Follow up FOAS at 12 weeks |
| • **ORAL PAIN MEDS** | Acetaminophen is likely adequate |
| • **IMMOBILIZE** | No |
| • **RETURN TO ADLs** | Immediately |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | 2 weeks |
| **REPEAT TREATMENT** | Minimum 12 weeks interval |

| | HYALURONIC ACID |
|---|---|
| **TIMING** | Anytime |
| **OPTIMAL CANDIDATE** | No tears and normal thickness |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• Any Tear<br>• Thickening > 8mm |
| **ANESTHETIC** | Lidocaine 1% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 27g x 1.25" |
| • **TARGET** | Into the skin and superficial fat, right down to the calcaneus until certain lidocaine is flowing adjacent fascia |
| **HYALURONIC ACID** | 1-2mL of soft-tissue adapted HA |
| • **SYRINGE** | 1.2mL pre-filled syringe |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Adjacent area of abnormality or pain |
| • **TOP TIPS** | This might mean spreading the HA around a few different areas |
| **POST PROCEDURE** | Follow up FOAS at 12 weeks |
| • **ORAL PAIN MEDS** | Acetaminophen is likely adequate |
| • **IMMOBILIZE** | No |
| • **RETURN TO ADLs** | Immediately |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | 2 weeks |
| **REPEAT TREATMENT** | Treatment is 2 injections, 7 days apart |

| | PROLOTHERAPY |
|---|---|
| **TIMING** | Not usually in first 6 weeks of pain |
| **OPTIMAL CANDIDATE** | No tears and normal thickness |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• Any Tear<br>• Thickening > 8mm |
| **ANESTHETIC** | Lidocaine 1% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 27g x 1.25" |
| • **TARGET** | Into the skin, superficial to tendon, and consider a small amount into the fascia itself |
| **PROLOTHERAPY** | 1mL Dextrose 50% +<br>3mL Lidocaine 1% = 12.5% Dextrose |
| • **SYRINGE** | 5mL with 4mL of 12.5% Dextrose |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Into fascia and around fascia |
| • **TOP TIPS** | Inject maximum 4mL,<br>2mL is a common amount |
| **POST PROCEDURE** | Follow up FOAS q 4 weeks x 6 |
| • **ORAL PAIN MEDS** | Acetaminophen+Tramadol/Codeine |
| • **IMMOBILIZE** | Only if worried about high pain, then boot for 2-3 days |
| • **RETURN TO ADLs** | Next day |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | Must discuss progress with therapist |
| **REPEAT TREATMENT** | Repeat prolo q 4 weeks x 3 - 6 total |

| | PRP |
|---|---|
| **TIMING** | Not usually in first 6 weeks of pain |
| **OPTIMAL CANDIDATE** | No tears and normal thickness |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• Any Tear<br>• Thickening > 8mm |
| **ANESTHETIC** | 1 part Lidocaine 1% + 9 parts Normal saline or simply use Ropivicaine 0.2% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 27g x 1.25" |
| • **TARGET** | Into the skin, superficial to tendon, and consider a small amount into the fascia itself |
| **PRP** | LR PRP (Red PRP) or LP-PRP (Yellow PRP)<br>Aim for 2.5 Billion Platelets |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Into fascia and around fascia |
| • **TOP TIPS** | Very Painful! Inject maximum 3mL, 1.5mL is a common amount |
| **POST PROCEDURE** | Follow up FOAS q 4 weeks x 6 |
| • **ORAL PAIN MEDS** | Acetaminophen+Tramadol/Codeine |
| • **IMMOBILIZE** | Only if worried about high pain, then boot for 2-3 days |
| • **RETURN TO ADLs** | Next day |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | Must discuss progress with therapist |
| **REPEAT TREATMENT** | Repeat PRP if needed after 8 weeks |

PODIATRY ULTRASOUND

# FOOT & ANKLE: ACHILLES TENDON

| | CORTISONE |
|---|---|
| **TIMING** | When Disabled! VAS > 7 / 10 w ADLs |
| **OPTIMAL CANDIDATE** | Healthy Tendon in a non-runner |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• Tear > 10 % of tendon<br>• Very poor strength |
| **ANESTHETIC** | Lidocaine 1% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 30g x 1" |
| • **TARGET** | The retrocalcaneal Bursa |
| **CORTISONE** | Triamcinolone 10mg or Methylprednisolone 10mg |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | The retrocalcaneal Bursa |
| • **TOP TIPS** | Cousel the patient extensively about risk of rupture and document this |
| **POST PROCEDURE** | Follow up VISA-A at 12 weeks |
| • **ORAL PAIN MEDS** | Acetaminophen is likely adequate |
| • **IMMOBILIZE** | No |
| • **RETURN TO ADLs** | 1 week |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | 2 weeks |
| **REPEAT TREATMENT** | No + counsel about rupture risk |

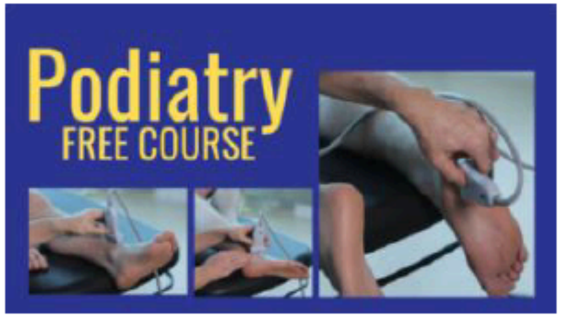
| | HYALURONIC ACID |
|---|---|
| **TIMING** | Anytime |
| **OPTIMAL CANDIDATE** | No tears (just tendinosis) |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• Tear > 10 % of tendon<br>• Very poor strength |
| **ANESTHETIC** | Lidocaine 1% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 30g x 1" |
| • **TARGET** | Into the skin and superficial to tendon, until certain lidocaine is flowing adjacent tendon |
| **HYALURONIC ACID** | 1-2mL of soft-tissue adapted HA |
| • **SYRINGE** | 1.2mL pre-filled syringe |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Adjacent area of abnormality or pain, including possibly the retrocalc bursa |
| • **TOP TIPS** | This might mean spreading the HA around a few different areas |
| **POST PROCEDURE** | Follow up VISA-A at 12 weeks |
| • **ORAL PAIN MEDS** | Acetaminophen is likely adequate |
| • **IMMOBILIZE** | No |
| • **RETURN TO ADLs** | Immediately |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | 2 weeks |
| **REPEAT TREATMENT** | Treatment is 2 injections, 7 days apart |

| | PROLOTHERAPY |
|---|---|
| **TIMING** | Not usually in first 6 weeks of pain |
| **OPTIMAL CANDIDATE** | No tears (just tendinosis) |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• Tear > 10 % of tendon<br>• Very poor strength |
| **ANESTHETIC** | Lidocaine 1% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 30g x 1" |
| • **TARGET** | Into the skin, superficial to tendon, and consider a small amount into the tendon itself |
| **PROLOTHERAPY** | 1mL Dextrose 50% +<br>3mL Lidocaine 1% = 12.5% Dextrose |
| • **SYRINGE** | 5mL with 4mL of 12.5% Dextrose |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Into tendinosis + tear and around tear |
| • **TOP TIPS** | Very Painful! Inject maximum 4mL, 2mL is a common amount |
| **POST PROCEDURE** | Follow up cq 4 weeks x 6 |
| • **ORAL PAIN MEDS** | Acetaminophen+Tramadol/Codeine |
| • **IMMOBILIZE** | Only if worried about high pain, then boot for 2-3 days |
| • **RETURN TO ADLs** | Next day |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | Must discuss progress with therapist |
| **REPEAT TREATMENT** | Repeat prolo q 4 weeks x 3 - 6 total |

| | PRP |
|---|---|
| **TIMING** | Not usually in first 6 weeks of pain |
| **OPTIMAL CANDIDATE** | No tears (just tendinosis) |
| **SUBOPTIMAL CANDIDATE** | • VAS > 7 / 10 with ADLs<br>• Tear > 25 % of tendon<br>• Very poor strength |
| **ANESTHETIC** | 1 part Lidocaine 1% + 9 parts Normal saline or simply use Ropivicaine 0.2% |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 30g x 1" |
| • **TARGET** | Into the skin, superficial to tendon, and consider a small amount into the tendon itself |
| **PRP** | LR PRP (Red PRP) or LP-PRP (Yellow PRP)<br>Aim for 2.5 Billion Platelets |
| • **SYRINGE** | 3mL |
| • **NEEDLE** | 25g x 1.5" |
| • **TARGET** | Into tendinosis + tear and around tear |
| • **TOP TIPS** | Inject maximum 4mL, 2mL is a common amount |
| **POST PROCEDURE** | Follow up VISA-A q 4 weeks x 6 |
| • **ORAL PAIN MEDS** | Acetaminophen+Tramadol/Codeine |
| • **IMMOBILIZE** | Only if worried about high pain, then boot for 2-3 days |
| • **RETURN TO ADLs** | Next day |
| • **RETURN TO THERAPY** | 1 week |
| • **RETURN TO SPORT** | Must discuss progress with therapist |
| **REPEAT TREATMENT** | Repeat PRP if needed after 8 weeks |

PODIATRY ULTRASOUND

# Online Courses

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In our free online podiatry course, learn how to scan the most common podiatry problems.

**Free Course/Modules**
1 hour of video content


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Our Live Podiatry Courses are 2 Days (Saturday/Sunday) of Hands-on Scanning with Cadaver Lab

## Master the Top 20 Podiatry Injections

Achilles tendon | Retrocalcaneal bursa
Plantar fascia | 1st Tarsometatarsal Joint
Talonavicular Joint | Talocuboid Joint
Cubonavicular Joint | 1st Toe MTPJ | Sesamoids
Morton's Neuroma
Intermetatarsal Bursa
Talocrural (tibiotalar) joint-anterior aspect
Talocrural (tibiotalar) joint-posterior aspect
Tibialis posterior tendon | Flexor digitorum tendon
Flexor hallucis tendon | Tibial nerve
ATFL | CFL
Peroneus (fibularis) longus & brevis tendons

**CALGARY**
February 7 & 8, 2026

**TORONTO**
March 7 & 8, 2026