

So,
You want to improve your **speed**

Really you are saying ..
*I want to improve my **power** ..*
the **speed** you can produce
in a **short time span**

e.g. The average sprint distance in an AFL game is said to be <17m;
explode .. get to the ball first. Netball .. significantly less, but more frequent.
If you get to the ball first .. you have a chance to apply your skills

The first thing to recognize is that improvement is achievable .. **IF** you work at it.
The second thing .. there is no wonder session .. it takes time and careful persistence,
mastery of basic drills — COMMITMENT.

IF you work consistently, intelligently .. **you will improve.**

Once a week .. *have-a-nice-day*

3-4 times a week *Maybe*

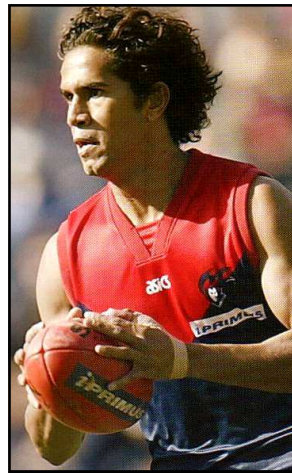
Each day say to yourself .. *What have I done today to contribute to me improving?*

You may have trained, stretched, completed a pool session, recovered appropriately,
played, read, watched, had a massage, completed a drills or bar circuit ...

There are many ways to help yourself ..

Careful planning to accommodate other training and lifestyle priorities is VITAL.

There are many other activities .. many other drills.



Presented are a **few examples** of activities that can be practiced to improve your power.

Every athlete is an experiment of one

but, one thing is certain .. YOU can never expect to improve things YOU don't practice (regularly) ..
as long as we seek to practice perfectly.

50 repeats forms a habit .. thousands of repeats to change the habit

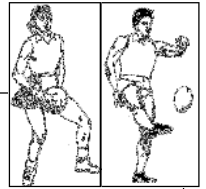
SO .. ALWAYS TRY TO PRACTICE PRECISELY (perfectly)

Various DVD's are available that show drills and
activities ... IF you are serious.

Also: check out—Setting Goals (Naber)
www.nwaswimaths.com > PROGRAMS > General Programs

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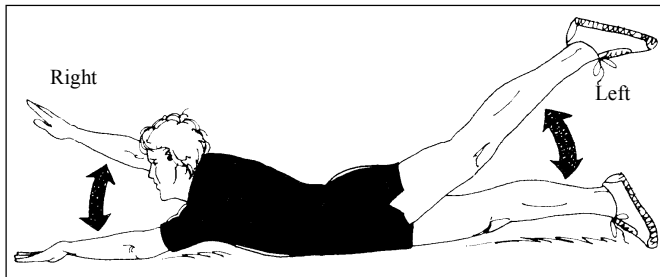
Improving Power .. approaches



Warm-Up:

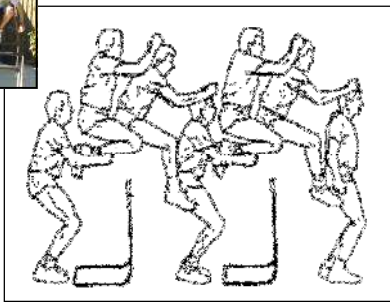
15 minutes .. Jog; stretch (3-4, incl. hamstrings);
 (General and sport-specific) **drills; acceleration runs (3-4 x 50m)**

1. Cross Body Lifts .. Can be done between each bounding set; or, incorporate another stretch;
 3-5 minutes between each set of bounds. Ladder (agility) drills can be inserted to provide variation.



Cross Body Lifts improve the efficiency of message delivery to the muscles .. this is vital in **all** sports. Messages come from the left hand side of the brain to the right hand side of the body; and R►L. Cross Body Lifts can improve the effectiveness of message delivery and should be done (2-3 sets) 4-5 times a week by all (junior) athletes. Each set: 5 Right Arm-Left Leg, alternating with 5 Left Arm-Right Leg .. hold extensions for 2-3 seconds.

2a Pre-Jump Bounding - Explosive Bounding - Resistance Bounds

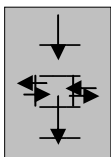


and / or

Maximum of 20 contacts per set; 2-3 Sets.
 5 Hurdles (poly pipe, cardboard, foam): 40 - 76 cm. (# below)
 Each set: 2 x 5H with **Pre-Jump** + 2 x 5H **Explosive** + 1 x 5H with **Pre-Jump** .. (Explosive **only** after rhythm and confidence established.)
Knees to Chest, rather than chest to knees;
 aim for maximum clearance (*Knees Up*)
 Head (eyes) Up: however, retain eye contact with hurdle.
 Feet 5-8 cm. apart on landing.
 If insecure .. step away; start again.
 2-3 mins. between each series of bounds; allow the energy to flow back into the muscles .. don't race through the sets.
 Advanced: include **Resistance Bounds**: 2x5 Ankle Wts►release (1 x 5)

2b Lateral Bounding .. (Pre-Jump / Explosive)

Hurdles should **always** be able to be stood over .. comfortably.
 It's **not** a HJ competition.
 The aim is Power, Rhythm, Balance.



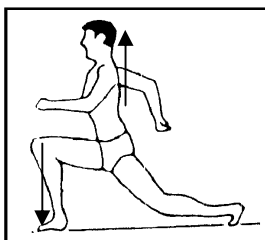
Similar guideline to basic bounding (above) .. face the front at all times, so that the lateral (sideways) bounds challenge the abductor and adductor muscles .. initially Pre-Jump; Explosive and stick-the-landing only when completely confident and capable of executing safely.

To be included within an advanced bounding series

How Many? Maximum contacts (bounds)
 Pre-Jump + Explosive + Resistance + Laterals
 Build-up to 50-60 per session.

QUALITY is more important than quantity

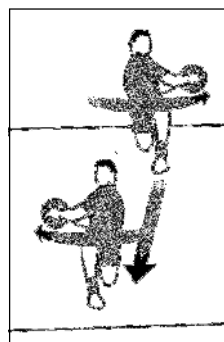
3. Lunges



Step forward (exaggerated) - **body upright** — arms swing for balance if necessary — as body sinks; **knee should be directly above** (not behind) **the foot**—steps forward can be quite fast, but sinking (muscle lengthening) and rising should be slower and controlled.

Complete sets of 10
 i.e. 5 Lunges on Left —
 5 Lunges on Right ..
 3-5 sets .. 3-5 mins. active, other activity recovery between sets.

OR



Straddle stand, with medicine ball held extended out from chest.

Step forward into a lunge position and twist, swinging the ball to the side of the forward leg. Repeat to the opposite side.

Moderate speed
 Ball: 2-4kg. or football/netball

Warm Down: 15 minutes .. Jog / walk / stretch.

It's what you learn after you think you know it all .. that counts !!

Selected Debbie Flintoff-King Stretches

(Hold stretch for 30 seconds minimum)

5 = Excellent; 3 = Satisfactory & Improving; 1 = Work Hard to Improve

With regular practice you will improve ... but, we do not improve at things we do not practice.

1. **Frog Stretch:** (for the groin) Kneel; knees wide apart; toes in and touching at the back; From sitting on heels, lean forward; arms outstretched.

5 4 3 2 1
2. **One Leg Over / One Leg Under**
 Sit down cross legged; keep your right knee in towards your groin, and take your left leg and bend it over the top of your right knee. Keep your bottom on the floor (do not sit on your heels). Aim to get your knees on top of one another; now lean forward (until you feel the stretch). Repeat both sides.

5 4 3 2 1
3. **Thigh Stretch:** Kneel; back to the wall; place your knee against the wall; position your foot outside your buttocks so you can press back with your bottom into the wall. The opposing leg balances; repeat on both sides.

5 4 3 2 1
4. **Kneeling Twist:** (for the groin and lower back)
 Kneel on your right knee; bring your left knee out in front of you; extend your right shoulder over your left knee, pushing your palm to the ground.

5 4 3 2 1
5. **Sitting Forward Bend / Modified Hurdle Sit** (Hamstrings)
 Sit with legs outstretched; bend your right knee, the sole of the foot pulled into the groin. Using both hands, grip your left knee, ankle or foot (wherever you feel the stretch is enough). Repeat on both sides.

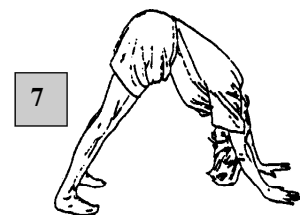
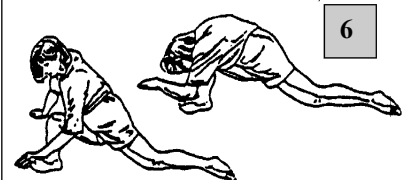
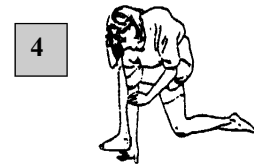
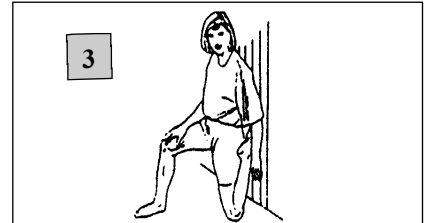
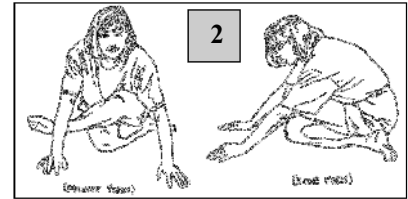
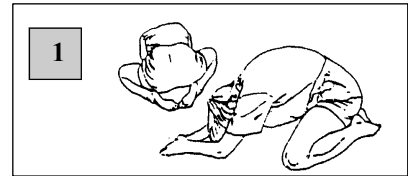
5 4 3 2 1
6. **Lying Forward Stretch (Bent Knee)**
 Sit, bending your right knee at 45°, extending your left leg straight back behind you. Lean forward stretching your arms in front of you. Keep your right buttock on the floor. Both sides.

5 4 3 2 1
7. **Dog Stretch:** Standing, feet shoulder width apart, with toes slightly turned in. Walk your hands away from your body, fingers pointed straight ahead. Head hangs loose; push your heels to the ground (hold); at the same time keep your buttocks high.

5 4 3 2 1
8. **Tricinasna:** (for the back) Best done against a wall. With feet apart (1m+), run your left foot along the skirting board (2cm out from the wall). Right heel back, toes pointed slightly inwards. Keep your legs straight; extend your left arm down; try to keep your shoulders back. Right arm raised above your head. Look up.

5 4 3 2 1
9. **Simple Twist:** Sit down cross-legged. Take your right leg over your left knee. Take your left shoulder inside your right knee, and hold on to your right foot. Turn and look over your right shoulder.

5 4 3 2 1



General and Event-Specific Flexibility .. Why is it important?

Young athletes (in particular) think they are bullet proof; injuries will always happen to someone else .. not so.

Improved flexibility not only helps protect against injury, in allows **YOU** to apply forces (comfortably) through the full range of motion.



North West Athletics: Power Activities



Never .. and I mean Never complete Power Activities on consecutive days; also, max. of 1-2 Power Activities per session

(e.g. Hurdle Bounds, or, at most, Hurdle Bounds + Lunges; one Power Activity, towards the end of the session is enough for young athletes)

I recommend no more than 2 Power Activity days per week, separated by **at least 2 days**, incl. a Rest Day; **never** within 5 days of a competition; and, always **at least one rest day before a speed session**.

1

HURDLE BOUNDING

Maximum of 20 contacts per set; 2-3 Sets.
5 Hurdles (poly pipe, cardboard, foam): 40 - 76 cm.
4 x 5H with pre-jump.

4 x 5H **Explosive** .. **only** after rhythm and confidence established.

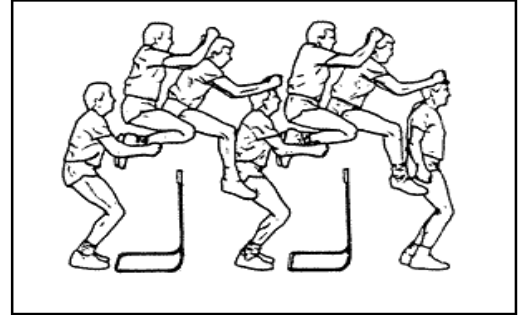
Knees to Chest, rather than chest to knees: aim for maximum clearance (*Knees Up*)

Head (eyes) Up: however, retain eye contact with hurdle.
Feet 5-8 cm. apart on landing.

If insecure .. step away; start again.

2-3 mins. between each series of bounds; don't race through the sets.

Resistance Bounds: 2 x 5 Ankle Wts.—release (1 x 5)



Be careful don't overdo bounds .. finish feeling as if you could do more .. gradual progression. In general 50-60 contacts .. **Always** in good sneakers .. Don't do too much, or rush - **Beware:** pay back day is the next day, or, Day 2.

2

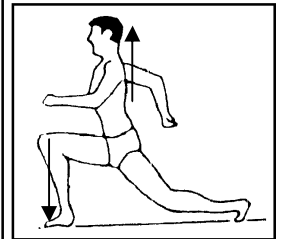
LUNGES

Be assured, after a series of lunges, you will have trouble sitting down or walking down stairs the next day or even two days later; lunges target eccentric strength .. the muscles are challenged as they lengthen; on most occasions, we associate challenges to the muscles with shortening (contraction) of the muscle.

I recommend no more than 4 x 10 lunges in the first session; progress gradually .. your muscles learn to cope.

Step forward (exaggerated) - **body upright** — arms swing for balance if necessary — as body sinks, **knee should be directly above** (not behind) **the foot**—steps forward can be quite fast, but sinking (muscle lengthening) and rising should be slower and controlled.

Complete sets of 10: i.e. 5 Lunges on Left—5 Lunges on Right .. 3—6 sets .. 2-5 mins. recovery, or alternate with arm-back-shoulder activities, e.g. rapid dumbbell arm swings.



Demonstrated in Drills for Speed video: Advanced Junior

3

Body Position Determines Muscle Recruitment

HILLS

Hill slopes should not exceed 5%, i.e. a rise of 5m in every 100m; the slope should enable you to run in correct running posture.

Never more than once a week. Examples vary with training age: 3 pt. starts .. record times achieved

1. Early stages: 3 x 70-100m; w/b (walk back) recovery
2. Intermediate: 2 x 3 x 150m; w/b; 5-6 mins. between sets
3. Advanced: 2 x 4 x 150m; w/b; 4-6 mins. between sets

Exact distances are not the issue; select a slope, run to a given point .. You choose the point.

Adjust the intensity / distance as you become toughened by the runs .. aim to progress over 2-3 months, not 2-3 sessions. (Sandhills or beach runs are fine, but different = **short** bursts of power, must be carefully supervised and not excessive.)

4

RESISTANCE DRILLS and SAND HILL (Pit) HOPS

Resistance Drills you will need a pair of ankle weights (500gm. or 1kg.) .. rapid velcro release ... Consult the **Drills Revision Sheet** (separate sheet): after a thorough W/U, complete a series of drills in the following manner:

e.g. A-Skip—10L+10R with ankle weight; brief (10 seconds rest) - repeat; then, remove ankle weight (<15 seconds) and complete 10L+10R without the weights.

Consult **Drills for Speed video**: A Speed Drills Session Advanced Junior .. procedure is shown. Always start drill sequence on non-preferred side .. Why?

You select drills, but, for example: A-Skip—Alternating Butt Kicks—Combinations .. 2-4 sets of each.

Hops: in sand/jump pit: 2-3 x 6 x R + 6 x L; full recovery between sets .. in sneakers (initially) .. later, can be in bare feet, depending on security of venue.

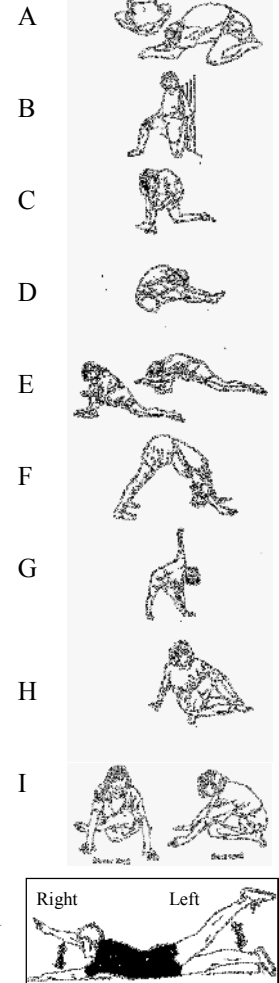
Check Out

Power Circuit Ideas 1 Drills for Speed video

There is an almost unlimited number of activities that can be pursued to enhance your power: Medicine Ball .. Fit (Super) Ball .. Speed Ball .. Bar Circuits .. 20/30 Min. Weight Circuits .. Body Weight Exercise Circuits

*Help is available ..
Don't complain help not sought .. is not available.*

Power Circuit Ideas 1

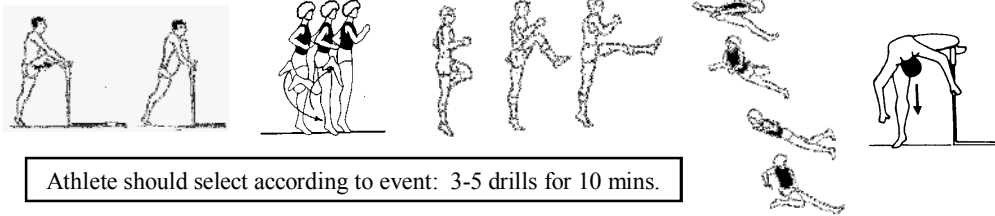


Warm-Up: Jog &/or Swim / Stretch / Drills

Ideal if session completed at poolside; swimming activities become an option for between activities .. otherwise select from stretches shown and/or event specific stretches. Separate sheets available on stretching,

Between each activity complete 1-2 stretches or a simple pool activity.

1. Drills & Stretches: this is an extension of the warm-up process, but more specific: examples only



Athlete should select according to event: 3-5 drills for 10 mins.

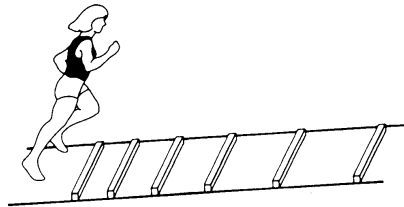
2a. Acceleration Ladder

Stride Length should increase at a regular rate over the first 6-10+ strides. The "**Acceleration Ladder**" or "**Stick Drill**" attempts to establish an acceleration rhythm with consistent stride length increases, and, progressive reduction in "ground time".

The **aims** are: 1. rapid leg speed,
2. minimal ground contact time, and
3. regular stride length progression.

4-6 runs; complete recoveries (2-4 mins.);
.. sprint off final stick to 10 or 15m.

Be sure to have 2-3 task familiarization runs before maximum, timed efforts .. 3 pt. starts .. alternating lead leg may be appropriate for some sports.



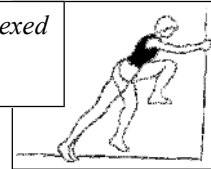
50/15: .50m - 1.15m - 1.95m - 2.90m - 4.00m - 5.25m
40/10: .40m - .90m - 1.50m - 2.20m - 3.00m - 3.90m

OR

2b. 3 & 5 Step Wall Sprint

2-4 x 3-Step
2-4 x 5-Step
1-2 Minute recovery between Wall Sprints

*High Knees; Toes Dorsiflexed
Decisive Knee Drive
Keep your head up*



3a. Hurdle Bounds .. (50cm ► 84cm; or, height variations)

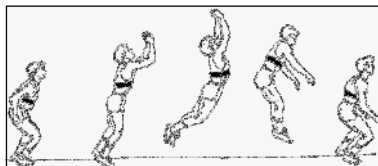
Example: 2 x 5H (Pre-Jump) .. lowest height to be attempted;
to establish rhythm and confidence.
4 x 5H (Explosive) .. maximum or successive height.
1 x 5H (Pre-Jump) .. variable heights.
2 x 5H (Explosive) .. variable heights.
1 x 5H (Pre-Jump) .. variable heights.

Laterals can be gradually introduced



Note! 50-60 contacts max.

3b. Double Leg Bounds .. stick the landing



Coach commands: 5-6 bounds from bent knee position; explode seeking height, with a double arm swing .. **stick-the-landing**. Wait for next coach command.
Focus on: Power — explode high — control (stable landing, knees bent).

4 - 6 x 5 sets of double leg bounds .. *stick-the-landing*

4. Drills .. Athlete should select according to event: 3-5 drills for 10 mins.

Warm Down: Jog / Stretches ... 10-15 mins.



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