

A SEASON ON THE EDGE: A YEAR LONG TRAINING PLAN FOR BREAUX GREER 2004

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The author, coach of javelin thrower Breaux Greer, presents in detail a comprehensive and in-depth review of the American Record Holder's training methodology and performance structure that resulted in his outstanding 2003 season. Re-printed with permission from the author.

This article will document the javelin-training regimen of Breaux Greer for the 2004 season in which he improved his IAAF world ranking from #17 in 2003 to #2, and broke the American record two times. In addition to these accomplishments, he produced five of the world's top ten throws and exceeded 86.50m in five competitions. He also won both Golden League competitions in which the javelin was contested and finished his tremendous season by winning the World Athletics Final in Monaco by over 5 meters. What is most remarkable about these accomplishments is that Breaux did most of it with an almost complete tear of his Anterior Cruciate Ligament (ACL), which he suffered during his American record performance in winning the Bislett Games on June 11th, 2004.

After a breakout season in 2001, in which Breaux finished fourth at the World Championships in Edmonton and was ranked #7 in the world, he struggled with injuries during the 2002 and 2003 campaigns. Probably the most important factor in his success in 2004 was that he was relatively healthy during the preparation period, which allowed him to get into a very high level of fitness as the international season began. I believe another important factor was that Breaux increased his body weight back up to 95-96kg from 92-93kg, which he was at for the 2003 season. During the preparation phase, Breaux was able to match his personal best in the snatch (105kg) and throw 24-25m in the overhead (backward) shot throw with relative ease. He had to work very hard to reach these levels in 2001, and could now repeat these performances with consistency. This was also true of many other lifting and throwing exercises in his training regimen as well which indicated he was in his best shape ever. Each 3-5 week training cycle of the yearlong plan will now be presented with a short description of the training goals and physical issues for each phase.

Summary of Performances for 2004

April 10 th	Spec Towns Invitational	86.83m
May 3 rd	Georgia Invitational	81.33m
May 14 th	Doha Super GP	79.03m
May 23 rd	Belem GP I	81.21m

June 6 th	Ostrava Super GP	84.95m
June 11 th	Bislett Games	87.39m (American Record)
July 15 th	US Olympic Trials (Q)	79.19m
July 17 th	US Olympic Trials (F)	82.39m (Meet Record)
July 27 th	DN Galan Super GP	78.52m
July 30 th	London Super GP	80.07m
August 6 th	Weltklasse GL	86.52m (2 nd GL Victory)
August 26 th	Olympic Games (Q)	87.25m (#10 in Olympic history)
August 28 th	Olympic Games (F)	74.36m
September 19 th	World Athletics Final	87.68m (American & Meet Record)

Fall Conditioning Cycle I: November 3rd-December 5th, 2003

After taking two months of active rest after the conclusion of the 2003 season in which Breaux kept fit with a lot of cross training, this cycle was the first planned training designed to prepare specifically for the upcoming season. Very little javelin throwing was performed during this time. However, runway drills while holding the javelin were done with frequently to work on good body posture during the approach. The volume of training for this cycle is very high, but it is something that Breaux likes. Breaux is a high-energy person and can handle this high volume for periods of time when he is not throwing a lot of javelin.

<u>Week</u>	<u>Power reps</u>	<u>Olympic reps</u>
1	x8x8x8x7x7	5x6
2	x8x7x7x7x6	x6x6x6x5x5
3	x7x7x6x6x6	x6x6x5x5x5
4	5x6	5x5
5	x6x6x6x5x5	x5x5x5x4x4

Monday

Cleans (see above)
 7 box jumps between sets
 Lunges 2x10 each leg
 Back Hypers (3 sets)
 Regular Pullovers 3x10
 Hurdle Hops 5x8
 (gradually increase height and/or distance)

Tuesday

Bench Press (see above)
 Dumbbell Flys 3x10
 Reverse Snatch 5x5
 Rhythmic Step-ups 2x10
 Standing Pullovers 3x10
 Hanging Leg Raises 3x10
 Stair Circuit (x7 sprints, x4 double legged hops)

Wednesday

Box Jump Circuit (x2 each ex. for 35 sec)
 Pedestals (x2 for 40 sec)
 Ball throws for height w/7 kg (4x10)
 Hurdle Circuit:
 Hurdle walkthroughs x5

Thursday

Snatch (see above)
 Front Jerks (3x5 @65kg, at least) Quick!
 Narrow Grip Snatch 3x5, fast!
 Reverse Hanging Dead-lift 5x5
 Regular Pullovers 3x10

Monday

Clean (see above)
7 box jumps between sets
Lunges 3x10 each leg
Back Hypers 3x10
Pullovers 3x10
Hurdle Hops (7x10)

Tuesday

Bench Press (see above)
Dumbbell Flys 3x10
Reverse Snatch 4x4
Reverse Dead-lift 3x7
Hanging Leg Raises 3x10
4x20m, 4x30m, 2x100m sprints

Wednesday

Pedestals (x2 for 45 seconds)
Stair Circuit (x8 sprints, x4 double leg hops)
Single Legged Stair Jumps (x2) for time

Thursday

Snatch (see above)
Front Jerks (3x5 @ 70-75kg)
Step-ups 3x8 each leg
Narrow Grip Snatch 4x5 fast!

Friday

Back Hypers 3x10
Back Squats (see above)
Roman Chair Sit-ups (3 sets)
Leg Curls 3x10 each leg
Pullovers 3x10
Russian twists 3x10
7x100m build-ups

Winter Conditioning Cycle I: January 12th-February 6th, 2004

After the winter break Breaux's weightlifting regimen was trimmed down, and more exercises were added outside the weight room. This was done by adding a fitness circuit, and two 60 minute sessions in the gymnastics room to work on abdominal strength and flexibility. Ball throws were also increased from 190 reps a week to 208 reps a week. Since Breaux's 2001 season had been so successful, it was decided to try to replicate the training from that season as close as possible, which was the reason for these changes. The feeling being, if it is not broken, don't fix it. Unfortunately, Breaux's right elbow (he was unable to extend it completely) began to bother him during this time and he was unable to throw the javelin for the month of January.

<u>Week</u>	<u>Power reps</u>	<u>Olympic reps</u>
1	x6x6x6x5x5	x5x5x5x4x4
2	5x5	5x4
3	x5x5x3x3x1	x4x4x3x3x2x1
4	x4x4x3x2x1	x4x3x3x2x1

Monday

Clean (see above)
7 box jumps between sets
Lunges 3x10 each leg
Pullovers 3x10
Hurdle Hops (7x10)

Wednesday

Fitness Circuit (see below)
Stretch & loosen up

Friday

Back Squat (see above)
Reverse Dead-lift 3x7
Leg Curls 3x10 each leg
Pullovers 3x10
Ball Throw Circuit #2
7x100m build-ups after squats to loosen up legs

Ball Throw Circuit #1

3x15 Overhead (forward) w/2kg
3x10 Overhead (forward) w/4kg
2x15 One hand throws w/1.6kg
2x10 three step throws w/3kg
2x10 three step throws w/2kg
2x12 single arm front throws (2 & 3kg) ** 6 throws each weight per set

Ball Throw Circuit #2

10 Underhands w/4kg
10 Throws for height off box w/5kg
5 Throws for height off box w/7kg
5 Overheads (backward) w/7.26kg
5 Overheads (backward) w/6kg
4 Overheads (backward) w/4kg

Tuesday

Bench Press (see above)
Dumbbell Flys 3x10
Reverse Snatch 4x4
Ball Throw Circuit #1
4x20m, 4x30m, 2x100m sprints
Gymnastics Room (1 hour)

Thursday

Snatch (see above)
Narrow Grip Snatch (4x4 fast!)
Rhythmic Step-ups 3x8 each leg
Gymnastics Room (1 hour)
5 jump squats w/80kg to stair jumps (x6)

Fitness Circuit

10 Bridges
10 side to side box jumps
10 Dynamic Hips raises (each leg)
10 Ball throws for height w/7kg
Push-ups around box (each way)
10 Burpees

Recovery from Surgery: Feb 4th-March 2nd, 2004

During the first winter conditioning cycle, Breaux's right elbow began to bother him quite a bit. He was unable to fully extend it, and this was cause for concern. After seeing a surgeon, we were told he could recover from surgery in about three weeks. We felt this was early enough in the season for him to recover in time for his opening meet since he was in very good physical shape at this point (he had thrown 82.67m off a five step in December). The surgery took place at the beginning of February. Six bone fragments were removed from his throwing elbow. The largest of which was the size of a peanut. After the surgery Breaux felt much better, and felt that nothing could stop him now, once he was able to recover. The month of February was used to rehabilitate from the elbow surgery.

Pre-Competition Cycle: March 3rd-April 9th, 2004

This cycle was the first aggressively planned training after the elbow surgery, and was designed to lead into Breaux's first meet on April 10th. This competition was designed to assess Breaux's throwing technique at full speed. We were sure he would be powerful, we would just not sure where his timing and technique would be since there was only one month to prepare, and he hadn't really been able to throw since December. Throwing workouts for this cycle consisted of throwing off of five steps (Mondays), and of full approach runs with no release (Thursdays). Breaux was not able to take a full throw in practice before the competition on April 10th. In addition to his ongoing elbow rehabilitation, two rotator cuff circuits were added to maintain the health of Breaux's shoulder.

<u>Week</u>	<u>Power reps</u>	<u>Olympic reps</u>
1	5x5	5x75kg, 4x80kg, 4x85kg, 3x87.5kg, 2x90kg
2	x5x5x4x4x4	4x80kg, 4x85kg, 3x90kg, 2x95kg, 2x95kg
3	5x4	4x85kg, 3x90kg, 3x95kg, 2x97.5kg, 1x100kg
4	x4x4x4x3x3	3x87.5kg, 3x92.5kg, 3x97.5kg, 2x100kg, 1x105kg
5	5x3	3x85kg, 3x90kg, 2x95kg, 1x102.5kg, 1x105kg

Monday

Snatch (see above)
Pull-overs (see power reps)

Tuesday

One-legged Squat 4x5 each leg
Reverse Dead-lift (x5x5x4x4x3)

Rotator Cuff Circuit #1 (see below)
2x200m, 2x150m, 2x50m sprints
Throwing workout

Bench Press (see above)
8x10 hurdle hops
Ball Throw Circuit #1 (see below)

Wednesday

Overheads (backward) w/4kg (x12)
10x20m sprints

Thursday

Speed Clean & Jerk (3x3) with 50-65kg
Reverse Snatch (see power reps)
Rhythmic Step-ups 3x8 each leg
Rotator Cuff Circuit #2

Friday

Throwing workout
4 jump squats followed by 15 stair jumps
Jump Squats (see above)
Pull-overs (x8) (see power reps)
Jumps on Vertimax (3x10)
Ball Throw Circuit #2 (see below)
6x100m build-ups

Ball Throw Circuit #1 (96 reps)

Overhead (forward) 3x10 w/2kg
Overhead (forward) 2x10 w/3kg
Overhead (forward) 2x8 w/4kg
Double arm stand throw 3x10 w/3kg

Ball Throw Circuit #2 (72 reps)

Three-step w/1.6kg 2x10
Three-step w/1kg 2x10
One-arm throw from shot ring w/2kg (3x6)
One-arm throw from shot ring w/3kg (x7)
Overhead (backward) w/7.26kg (x7)

Rotator Cuff Circuit #1

Lateral Arm Raises 3x8
Lateral Arm Raises-Isometric 3x(3x6sec)
Bent-over Dumbbell Flys 3x8
Standing "L" Flys 3x10
Lying "L" Flys 3x10

Rotator Cuff Circuit #2

Lat Pull-downs 3x8
Internal Rotator Curls 3x8
Shrugs 3x6
Lying Flys 3x10
Behind the neck press 3x8

Competition Phase I: April 15th-May 14th, 2004

The competition on April 10th went very well. Breaux almost broke the American record with a throw of 86.83m, and he also had two more throws over 82m in his series. This was the first time he threw off a full approach all year so we were very happy with the results. A rough biomechanical analysis was performed with Dartfish software of his competition throws. Release speeds were found to be near 31.7 m/s and his runway speed at 7.2 m/s. My guess was that these results were over estimated, but in any case they were good numbers and showed that Breaux was in a high level of fitness. This next cycle saw a decrease in volume in the weight-room

(only one heavy lifting day a week), which would allow Breaux to focus more energy on his throwing sessions. Breaux had two important Grand prix meets at the end of this cycle (Doha and Belem) and we were hoping to fine-tune his full approach. Unfortunately, Breaux's shoulder began to hurt during the second week of the cycle, and very little throwing was performed. We had to compensate for this by doing a lot of runway drills with no release.

<u>Week</u>	<u>Jump Squats (kgs)</u>	<u>Snatch (kgs)</u>
1	5x92.5, 5x102, 5x102, 4x102, 4x107.5	5x75, 4x80, 4x85, 3x90, 3x95
2	5x102.5, 4x107.5, 4x110, 3x115, 3x125	4x80, 4x85, 3x90, 3x95, 2x100
3	4x115, 4x115, 3x125, 3x125, 3x135	3x80, 3x85, 3x90, 1x100, 1x105

Monday

Throwing session
 Hanging Leg Raises 2x10
 6x100m build-ups
 5x20m sprints

Tuesday

Snatch (see above)
 Jump Squats (see above)
 Trunk Work (100 reps)
 Agility Circuit to loosen up legs after lifting

Wednesday

Rotator Cuff Circuit #1 (see previous cycle)
 Four-Way Leg Machine (2x8 each direction)
 Stair Circuit (x8 sprints, x6 double leg jumps)

Thursday

Ball Throw Circuit & Runway Circuit

Friday

Rotator Cuff Circuit #2 (see previous cycle)
 Overheads (backward) x12 with 4kg
 Underhands x8 w/4kg
 Hurdle Jumps 8x10

Rest Saturday & Sunday

Ostrava GP Preparation Cycle: May 25th-June 11th, 2004

Upon returning from meets in the Middle East and South America, Breaux was a little tired and his throwing shoulder was bothering him some. Training for this next period between meets was much lighter so as to allow Breaux some recovery time. On May 26th, Breaux had his best throwing session of the year in which he took eight throws off a full approach. He was able to keep all the throws over 83 meters with the best being measured at 87.47m. We knew Breaux would be ready to challenge the American record again at the upcoming meets based on these practice results.

May 25th: Speed Clean & Jerk (4x4), Dumbbell Jump Squats 3x5, loosen up at track

May 26th: Throwing session

May 27th: Overheads with 4kg (x8), Standing Long Jump (x6), 5 single leg bounds into pit for distance (3 each leg)
 May 28th: Shoulder combination workout in weight room, Pullovers x4x4x3x2x1, 6x20m sprints
 May 29th: REST
 May 30th: Light Throwing workout
 May 31st: Hang Snatch 4x3 up to 80kg fast!, Speed Clean & Jerk 3x3, Single leg Dumbbell Jump Squat 3x3 for each leg, trunk work (x100), 6x100m build-ups
 June 1st: same workout as May 27th
 June 2nd: REST
 June 3rd: REST
 June 4th: Same workout as May 28th, except pullovers will be 3x5 with comfortable weight
 June 5th: Travel to Ostrava, Czech Republic
 June 6th: loosen up and light warm-up
 June 7th: REST
 June 8th: Competition at Golden Spike Meet
 June 9th: Travel to Bergen, Norway
 June 10th: REST
 June 11th: Competition at Bislett Games

Breux set the American record of 87.39m in winning the Bislett Games on June 11th. However, he tore his ACL on his winning throw and was forced to stop after three throws. Upon his return to the USA, Breux meet with different specialists to get opinions on whether he could continue the season. It was determined he could, and he began to rehabilitate the knee as soon as possible in preparation for the Olympic Trials.

Olympic Trials Preparation: June 21st-July 15th, 2004

During this time, Breux would do a leg circuit two times daily to rehabilitate his knee. He also did an upper body circuit to keep the tone in his upper body. These workouts varied from day to day but included the following exercises: Bench Press (varied grips), Back Pulls supersetted with dumbbell military press, Incline bench press with chains, Lat Pulls, Seated Rows, V-grip pull downs, pull-overs, bar curls, and tricep pushdowns. Most importantly, throwing workouts began with the goal of getting used to throwing with pain. The ultimate goal was to be able to throw 75m off a five-step approach by the Olympic Trials. The following chronology of throwing marks were done during the three-week period:

June 25th: 60 meters of a three step walk-in approach (there was a lot of pain)
 July 4th: 70 meters of a five-step approach (6 over 70m, 10 over 68m)
 July 7th: 75.50 meters off a five-step approach
 July 12th: 75 meters off a five-step approach at American River College (12 throws over 70m)
 July 13th: 71 meters of a walking three-step approach in the stadium (confidence very high now)

Grand Prix Season & Olympic Preparation: July 23rd-August 19th, 2004

After winning the US Olympic Trials with a throw of 82.39m, Breaux took five days off from training to let his knee recover from the two days of competition at the Trials. It was decided that he would need some high energy situations to work on throwing with the pain, so instead of staying in Georgia to prepare for the Olympics, he would do three meets on the Grand Prix circuit with the hopes of being steady over 82 meters for these meets (Stockholm, London, and Zurich). Leg rehab consisting of leg curls, split squats, single leg press from 45-degree stop, and Romanian Dead-lift would be performed during this trip as much as possible. The rest of the training outline went as follows:

July 24th: travel to Stockholm

July 25th: Arrive Stockholm, and loosen up

July 26th: REST

July 27th: Competition in Stockholm (78.52m, cold & rainy, knee hurting)

July 28th: Travel to London

July 29th: REST

July 30th: Competition in London (80.07m, took one throw, knee hurting)

July 31st: Travel to Zurich

August 1st: One-legged squat 3x15, Good Morning 4x8, Single Leg Press 3x8, Single leg Curl 3x8, Bench press 5x5, Seated Rows 5x8, Dumbbell Incline Bench 3x10, Pullovers 3x5, Bicep Curls 4x8, Pushdowns 2x8, 2x6, Delt Combo 3x8, 7x50m strides

August 2nd: Leg Press 4x8, Leg Curls 4x8, Cleans 4x3 (light), Pullovers 4x5, Plate sit-ups 4x10, Overheads (backward) w/3kg 4x8, Overhead (forward) w/3kg 4x8, Twists w/3kg 4x8 each side.

August 3rd: loosen up, 6x50m strides, 4x20 sit-ups, 6 full approach run-throughs.

August 4th: Split squat 4x8, Romanian Dead-lift 4x8, Leg Press 4x8, Bench Press 5x5, Back Rows 4x6, Alternating dumbbell incline military press 3x10, Dumbbell rows 3x10, Pullovers 3x5, Bicep curls 4x8, Pushdowns 2x8, 2x6

August 5th: REST

August 6th: Competition at Zurich (86.52m, knee felt a lot better)

August 7th: Travel to Athens, Greece

August 8th: Travel to Crete for training camp, leg curls 4x8, leg press 4x8, cable lunges 4x8, good mornings 4x8, Lat Pulls 4x8, Tricep extension 4x8, Bicep curls 4x8, Shrugs 4x8, sit-ups w/dumbbell 4x10

August 9th: hamstring curls 4x8, leg press 4x8, split squats 4x8, reverse dead-lift 4x8, Bench press 5x5, seated rows 5x8, dumbbell incline bench press 3x6, V-grip pull-downs 4x8

Pullovers 3x3, Bicep curls 4x8, pushdowns 4x8, sit-ups 4x8 w/weight, 2x25 crunches

August 10th: stand-throws (x21, close to 70m), 12 five-step throws, 70m+.

August 11th: hamstring curls 4x8, single leg press 4x8, split squats 4x8, good mornings 4x8, bench press 8x3, seated rows 4x6, pullovers 4x5, Delt combo 3x8, crunches 4x20, Leg raises 4x8

August 12th: REST

August 13th: REST

August 14th: Five-step throws, at 77m+.

August 15th: REST

August 16th: hamstring curls 4x8, single leg press 4x8, split squats 4x8, good mornings 4x8, dumbbell bench press 4x8, seated rows 4x8, Bicep curls 2x8, Tricep extension 4x6

August 17th: REST, hurt shoulder

August 18th: REST

August 19th: Return to Athens

August 20th-26th: rehab shoulder and knee

August 26th: Olympic Qualifying (87.25m)

August 27th: REST

August 28th: Olympic Final (74.36m)

August 29th: REST

August 30th: return to Athens, Georgia

World Athletics Final Preparation: August 31st-September 19th, 2004

After the Olympic Games most of the preparation for the World Athletics Final took place in the weight room as Breaux rehabilitated his throwing shoulder and injured knee. Only one hard throwing workout took place (September 9th) during this three-week period. This workout involved 24 five step approaches off grass to ease the burden on the planting knee. All of Breaux's throws were over 78 meters with the best being 82-83 meters. Based on the ease at which he threw these distances, we felt no more throwing was necessary for preparation and he should just focus on getting his knee and shoulder in the best shape possible before heading to Monaco.

August 31st: Single leg curl 4x8, One-legged press 4x8, Split squats 4x8, Reverse Dead-lift 4x8, Bench Press 5x5, Seated Rows 5x8, Dumbbell Incline Bench Press 4x8, V-grip pull-downs 4x8, Bicep curls 4x8, Pushdowns 4x8, 4x20 crunches, 4x8 hanging leg raises

Sept 1st: Bench Press 5x5, Seated rows 5x8, Dumbbell Incline Bench Press 4x8, V-grip pull-downs 4x8, Bicep curls 4x8, pushdowns 4x8, 5x10 med ball sit-ups, 4x8 hanging leg raises

Sept 2nd: standing cable abs 4x10, med ball twists w/4kg 4x10 each way, Swiss ball sit-ups 3x8, 10x40m sprints

Sept 3rd: Leg Curls 4x8, Leg Press 4x8, Split Squats 4x8, Good mornings 4x8, hang snatch 5x5, Incline Bench Press 3x6, Pull-downs x6, Dumbbell military press 3x8, Pullovers 3x8, Rear Delt row 3x12, Theraband work for shoulder

Sept 4th: REST

Sept 5th: REST

Sept 6th: Leg curls 4x8, Leg Press 4x8, Split Squat 4x8, Good mornings 4x8, Snatch 5x5, Standing cable abs 4x10, med ball twists w/4kg 4x10 each side

Sept 7th: Dumbbell Bench Press 4x8, Row machine 4x8, dumbbell military press 3x8, close grip pull-downs 3x8, seated box rows 4x8, crunches 4x20, hanging leg raises 4x8, Theraband work for shoulder

September 8th: REST

Sept 9th: Throwing session, close grip bench press 4x8, standing dumbbell curls 4x8, tricep extension 3x8, cable curls 3x8, pushdowns 3x6, single arm preacher curls 3x6, crunches 4x15

Sept 10th: split squat w/dumbbell 4x10, leg curl 4x6, single leg press (w/5 sec negative) 4x6, single leg Romanian dead-lift 4x8, one arm dumbbell row 3x10, dumbbell shrug 3x8, standing cable 3x8, side bends 3x8, ball twists 3x15 w/4kg, hanging leg raises 3x8

Sept 11th: REST

Sept 12th: REST

Sept 13th: leg curl 4x8, leg press 4x8, split squat 4x8, good mornings 4x8, dumbbell bench press 4x5, row machine 4x8, incline bench press 3x10, close grip pull-downs 3x8, seated high rows 3x10, Theraband work for shoulder, crunches x100, side crunches 50, rotations w/ 12# med ball 5x10, Swiss ball sit-ups 3x10, side pedestals (x30 sec each side)

Sept 14th: tricep pushdowns 3x15, reverse grip lat pull-downs 3x15, dumbbell tricep extensions 3x10, single arm dumbbell curls 3x6, overhead dumbbell tricep extensions 3x8, one arm preacher curls 3x4

Sept 15th: snatch 5x5, pullovers 3x8, single arm dumbbell shrugs 4x8, one arm dumbbell rows 3x6, lying rear Delt row 4x10, standing cable abs (4 sets), dumbbell side bends 3x6, hanging leg raises 4x8, med ball twists 3x10

Sept 16th: travel to Monaco

Sept 17th: arrive in Monaco, loosen up

Sept 18th: REST

Sept 19th: Competition at World Athletics Final (87.68m, American Record)