



Vanderbilt Sports Medicine

Knee Center *and* Shoulder Center

INTERVAL THROWING PROGRAM FOR LITTLE LEAGUE™ AGE ATHLETES

Name: _____ Age: _____ MPH: _____

From age and velocity the target distance is defined and the appropriate Interval Throwing Program is selected. The target distance is 90% of the predicted maximum throwing distance established from data collected from more than 1000 Little League™ age athletes (9-12 years of age) with the assistance of several Delaware based organizations. The interval Throwing Program (ITP) is functional, practical and progressive.

- **Functional** in that a throwing athlete must throw
- **Practical** in that only baseball and field are needed
- **Progressive** in that it increases from lower intensity to higher intensity

THROWING PROGRAM WARM-UP AND COOL DOWN

- 1) Break a sweat
- 2) Shoulder stretches

THEN: THROWING PROGRAM

- 3) Shoulder strengthening exercises (dumbbells, bands, isometrics)
- 4) Shoulder stretches
- 5) Ice for 20 minutes (optional)

- In the ITP, the target distances recommended are rounded to the nearest 10 feet.

- To each Phase there is a **short toss**, a **15 minute rest** and a **long toss** component to be performed at each workout.

● Soreness Rules

- If sore more than 1 hour after throwing, or the next day, take 1 day off and repeat the most recent throwing program workout.

- If sore during warm-up but soreness is gone within the first 15 throws, repeat the previous workout. If shoulder/elbow becomes sore during this workout, stop and take 2 days off. Upon return to throwing, drop down 1 phase.

- If sore during warm-up and soreness continues through the first 15 throws, stop throwing and take 2 days off. Upon return to throwing, drop down 1 phase.

- If no soreness, advance 1 phase every throwing day.

- Do not advance more than 2 phases per week.

Off Season Maintenance Program:

Throw 2-3 times per week at Phase VII or VIII with at least 1 day of rest between workouts.

In Season:

Day 0 - Game

Day 2 - Throw Phase VII

Day 1 - Throw Phase III

Day 3 - Throw Phase IV

After an injury (When cleared by doctor):

Begin with Phase I. Take 2-3 days rest between sessions and advance as soreness Rules allow.

Table 5
Interval Throwing Program Target Distance, Velocity/Age^a

Velocity (mph)	Age and target distance (feet)			
	9	10	11	12
35	69.4	80.8	OR ^b	OR
35.5	70.9	81.9	OR	OR
36	72.3	83.2	83.0	OR
36.5	73.8	84.4	84.4	77.0
37	75.3	85.7	85.8	78.6
37.5	78.4	88.2	88.6	81.9
38	78.4	88.2	88.6	81.9
38.5	79.9	89.5	90.1	83.6
39	81.5	90.8	91.5	85.3
39.5	83.0	92.1	93	86.9
40	84.6	93.4	94.5	88.7
40.5	86.2	94.7	96.0	90.4
41	87.7	96.1	97.5	92.2
41.5	89.3	97.4	99.0	93.9
42	90.9	98.8	100.5	95.6
42.5	92.5	100.2	102.1	97.4
43	94.2	101.6	103.6	99.2
43.5	95.8	103.0	105.2	101.0
44	97.4	104.4	106.8	102.8
44.5	99.1	105.9	108.4	104.6
45	100.7	107.3	110.0	106.4
45.5	102.4	108.8	111.6	108.2
46	104.1	110.2	113.3	110.0
46.5	105.8	111.7	114.9	111.9
47	107.5	113.2	116.6	113.7
47.5	109.2	114.7	118.3	115.6
48	110.9	116.2	120.0	117.4
48.5	112.6	117.8	121.7	119.3
49	114.3	119.3	123.4	121.3
49.5	116.1	120.9	125.2	123.2
50	117.8	122.5	126.9	125.1
50.5	119.6	124.1	128.7	127.0
51	121.4	125.7	130.5	128.9
51.5	123.24	127.3	132.3	130.9
52	124.9	128.9	134.1	132.8
52.5	126.7	130.5	135.9	134.8
53	128.6	132.2	137.8	136.8
53.5	130.4	133.9	139.6	138.7
54	132.2	135.5	141.5	140.7
54.5	OR	137.2	143.4	142.7
55	OR	138.9	145.3	144.7
55.5	OR	140.7	147.2	146.8
56	OR	142.4	149.1	148.8
56.5	OR	144.1	151.0	150.8

a At 90% statistical model predicted distance

b Out of range

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Table 5
Interval Throwing Program Target Distance, Velocity/Age^a

Velocity (mph)	Age and target distance (feet)			
	9	10	11	12
57	OR	145.9	153.0	152.9
57.5	OR	147.6	154.9	155.0
58	OR	OR	156.9	157.0
58.5	OR	OR	158.9	159.0
59	OR	OR	160.9	161.2
59.5	OR	OR	162.9	163.3
60	OR	OR	164.9	165.4
60.5	OR	OR	167.0	167.5
61	OR	OR	OR	169.7
61.5	OR	OR	OR	171.8
62	OR	OR	OR	174.0
62.5	OR	OR	OR	176.1
63	OR	OR	OR	178.3
63.5	OR	OR	OR	180.5
64	OR	OR	OR	182.7
64.5	OR	OR	OR	18.9
65	OR	OR	OR	OR

**Little Leaguer
Interval Throwing Program**

PHASE I

____ Rest between short & long (10 min)
 Short toss
 Feet ____ (20')
 Rest time ____ (12 sec/throws & 6-8 min/sets)
 Throws ____ Set 1 2 3
 Throws 15 15 20
 Intensity ____ (work to tolerance)

PHASE I

Long toss
 Feet ____ 65% target distance
 Rest time ____ (12 sec/throws)
 Throws ____ (25)
 Intensity ____ (to tolerance)

PHASE II

____ Rest between short & long (10 min)
 Short toss
 Feet ____ (30')
 Rest time ____ (12 sec/throws & 6-8 min/sets)
 Throws ____ Set 1 2 3
 Throws 15 15 20
 Intensity ____ (work to tolerance)

PHASE II

Long toss
 Feet ____ 70% target distance
 Rest time ____ (12 sec/throws)
 Throws ____ (25)
 Intensity ____ (to tolerance)

PHASE III

____ Rest between short & long (10 min)
 Short toss
 Feet ____ (40')
 Rest time ____ (12 sec/throws & 6-8 min/sets)
 Throws ____ Set 1 2 3
 Throws 15 15 20
 Intensity ____ (work to tolerance)

PHASE III

Long toss
 Feet ____ 75% target distance
 Rest time ____ (12 sec/throws)
 Throws ____ (25)
 Intensity ____ (to tolerance)

PHASE IV

____ Rest between short & long (10 min)
 Short toss
 Feet ____ (46')
 Rest time ____ (12 sec/throws & 6-8 min/sets)
 Throws ____ Set 1 2 3
 Throws 15 20 20
 Intensity ____ (up to ½ speed)

PHASE IV

Long toss
 Feet ____ 80% target distance
 Rest time ____ (12 sec/throws)
 Throws ____ (25)
 Intensity ____ (to tolerance)

Figure 4. Sample interval throwing program.

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**Little Leaguer
Interval Throwing Program**

PHASE V

___ Rest between short & long (10 min)
 Short toss ___
 Feet ___ (46')
 Rest time ___ (12 sec/throws & 6-8 min/sets)
 Throws ___ Set 1 2 3
 Throws 15 20 20
 Intensity ___ (up to ¾ speed)

PHASE V

Long toss ___
 Feet ___ 85% target distance
 Rest time ___ (12 sec/throws)
 Throws ___ (25)
 Intensity ___ (to tolerance)

PHASE VI

___ Rest between short & long (10 min)
 Short toss ___
 Feet ___ (46')
 Rest time ___ (12 sec/throws & 6-8 min/sets)
 Throws ___ Set 1 2 3
 Throws 20 20 20
 Intensity ___ (mound, full speed)

PHASE VI

Long toss ___
 Feet ___ 90% target distance
 Rest time ___ (12 sec/throws)
 Throws ___ (25)
 Intensity ___ (to tolerance)

PHASE VII

___ Rest between short & long (10 min)
 Short toss ___
 Feet ___ (40')
 Rest time ___ (12 sec/throws & 6-8 min/sets)
 Throws ___ Set 1 2 3
 Throws 20 20 25
 Intensity ___ (mound, full speed: breaking ball 3:1)

PHASE VII

Long toss ___
 Feet ___ 95% target distance
 Rest time ___ (12 sec/throws)
 Throws ___ (25)
 Intensity ___ (to tolerance)

PHASE VIII

___ Rest between short & long (10 min)
 Short toss ___
 Feet ___ (46')
 Rest time ___ (12 sec/throws & 6-8 min/sets)
 Throws ___ Set 1 2 3
 Throws 20 25 25
 Intensity ___ (mound, full speed: breaking ball 3:1)

PHASE VIII

Long toss ___
 Feet ___ 100% target distance
 Rest time ___ (12 sec/throws)
 Throws ___ (25)
 Intensity ___ (to tolerance)

PHASE IX

___ Simulated Game

Figure 4. Sample interval throwing program.
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