## Appendix 1A. Interval Throwing Program for 8-12 Year Old Athletes.

| Phase I | Short Toss* | Long Toss* |
| :---: | :---: | :---: |
|  | 15 throws at 20' | 10 minute rest between short \& long toss |
|  | 15 throws at 20' | 65\% Target Distance |
|  | 20 throws at 20' | 25 throws |
|  | Intensity to tolerance | Intensity to tolerance |
| Phase II | Short Toss* | Long Toss* |
|  | 15 throws at 30' | 10 minute rest between short \& long toss |
|  | 15 throws at 30' | 70\% Target Distance |
|  | 20 throws at 30' | 25 throws |
|  | Intensity to tolerance | Intensity to tolerance |
| Phase III | Short Toss* | Long Toss* |
|  | 15 throws at 40' | 10 minute rest between short \& long toss |
|  | 15 throws at 40' | 75\% Target Distance |
|  | 20 throws at 40' | 25 throws |
|  | Intensity to tolerance | Intensity to tolerance |
| Phase IV | Short Toss* | Long Toss* |
|  | 15 throws at 46' | 10 minute rest between short \& long toss |
|  | 20 throws at 46' | 80\% Target Distance |
|  | 20 throws at 46' | 25 throws |
|  | Intensity up to $1 / 2$ speed | Intensity to tolerance |
| Phase V | Short Toss* | Long Toss* |
|  | 15 throws at 46' | 10 minute rest between short \& long toss |
|  | 20 throws at 46' | 85\% Target Distance |
|  | 20 throws at 46' | 25 throws |
|  | Intensity up to 3/4 speed | Intensity to tolerance |
| Phase VI | Short Toss* | Long Toss* |
|  | 20 throws at 46' | 10 minute rest between short \& long toss |
|  | 20 throws at 46' | 90\% Target Distance |
|  | 20 throws at 46' | 25 throws |
|  | Mound, full speed | Intensity to tolerance |
| Phase VII | Short Toss* | Long Toss* |
|  | 20 throws at 46' | 10 minute rest between short \& long toss |
|  | 20 throws at 46' | 95\% Target Distance |
|  | 25 throws at 46' | 25 throws |
|  | Mound, full speed; breaking ball 3:1 | Intensity to tolerance |
| Phase VIII | Short Toss* | Long Toss* |
|  | 20 throws at 46' | 10 minute rest between short \& long toss |
|  | 20 throws at 46' | 100\% Target Distance |
|  | 25 throws at 46' | 25 throws |
|  | Mound, full speed; breaking ball 3:1 | Intensity to tolerance |
| Phase IX | Simulated Game |  |

*12 second rest between throws \& 6-8 minutes rest between sets.
-From age and velocity the target distance is defined and an individualized Interval Throwing Program is designed.
-Target distances recommended are rounded to the nearest 10 feet.

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Appendix 1B. Interval Throwing Program Target Distance,Velocity/Age.

## Age and target distance (feet)

| Velocity (mph) | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: |
| 35 | 69.4 | 80.4 | OR | 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 | 93.0 | 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 |
| 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 | 184.9 |
| 65 | OR | OR | OR | OR |

$\overline{\mathrm{OR}=\text { Out of range }}$
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