

PITCHING SPEED STATISTICS

COACHES: TEACHING YOUR PITCHERS TO MAXIMIZE THEIR OWN POTENTIAL TO GENERATE PITCH SPEED IS IMPORTANT FOR TWO REASONS. FIRST, IT FORCES BATTERS TO MAKE BAD DECISIONS, REDUCING THE CHANCES OF MAKING SOLID CONTACT. SECOND, THE FASTER THE BALL TRAVELS, THE TOUGHER IT IS TO HIT. THIS CHART SHOW WHY. ON AVERAGE A BATTER REQUIRES .24 SECONDS TO REACT TO THE BALL AND .16 SECONDS TO EXECUTE A NORMAL SWING. THE TOTAL TIME REQUIRED TO REACT AND SWING IS .4 SECONDS.

THE IMPORTANT THING TO REMEMBER IS THAT EVERY PITCHER IS DIFFERENT. SOME HAVE THE GIFT OF SPEED, OTHERS DON'T. THE COACHING GOAL SHOULD BE TO ENSURE EACH PITCHER ACHIEVES AND SUSTAINS HER OWN POTENTIAL FOR SPEED.

	<u>TIME IN SECONDS</u>	<u>MEAN</u>
BATTER REACTION TIME	.21 to .27	.24
SWING TIME	.12 to .20	.16
TOTAL TIME	.33 to .47	.40

SPEED ANALYSIS

RANGE OF BALL SPEEDS

	<u>M.P.H.</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
Km/Hr.	80.4	96	112.6	128	144	
F.P.S.	73	88	102.6	117.3	132	

Interval Time - Ball in Flight	@46 Ft.	.63	.52	.45	.39	.35
	@40 Ft.	.55	.45	.39	.34	.30

Decision Time in Feet	@46 Ft.	29.2	35.3	40.8	47	52
	@40 Ft.	29	35.6	41.3	47	53.3

FORMULA - $\frac{\text{Distance ball travels} \times \text{Reaction time}}{\text{Interval Time} - (\text{Ball in Flight})} =$

Distance in feet required for swing decision

DEVELOPING SPEED

THIS CHART SHOWS THE DRILLS USEFUL FOR DEVELOPING SPEED. THE PRACTICE ACTIVITIES ARE LISTED ON THE LEFT SIDE, AND THE COMPONENT TO WHICH EACH CONTRIBUTES IS INDICATED WITH AN "X". THE ASTERISKS INDICATE DRILLS THAT CAN BE DONE AT HOME.

	<u>SPEED COMPONENT</u>		<u>PRACTICE ACTIVITY</u>
	<u>STRENGTH</u>	<u>COORDINATION</u>	<u>FLEXIBILITY</u>
Dry Pitching**	X	X	X
Wall Pitching		X	X
Speed Pitching	X	X	
Distance Pitching	X	X	
ARM STRENGTH PROGRAM**		X	X

SPEED COMPONENTS

The components that produce pitch speed are coordination, rhythm and strength.

Coordination - is the product of copious repetitions. The more the pitcher repeats the motion, the greater the coordination.

Rhythm - is developed through repetitions and paying attention to the feelings of smoothness and power.

Strength - especially dynamic strength (ability to explode the muscles). Every pitcher over 15 should be on a strength program for leg, arm and shoulder strength. See, "Gold Medal Pitching", Level 2.

THE KEY TO DEVELOPING SPEED IS SIMPLY TO ENSURE THAT PITCHERS HAVE A OPPORTUNITY TO APPLY THESE DRILLS IN THE PREFERRED COMBINATIONS DURING PRACTICES. THE DRILLS CAN BE ALTERNATED OR SUBSTITUTED TO MEET INDIVIDUAL NEEDS, BUT THERE SHOULD BE SPECIFIED PROGRESSIVE WORKLOADS FOR THE PITCHERS TO ACHIEVE EVERY PRACTICE.