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Patterns of Injury In Youth Baseball

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Injuries in youth baseball are always of interest because (1) they come with the challenges of the game, and (2) they can be minimized through good rules, good talent, good coaching/training, and good umpiring. While they cannot be eliminated, it is good risk management to look for patterns of injuries that do occur so that a focus can be given to the attentions meant to help minimize known hazards. There are countless ways a baseball player can get hurt, but patterns reveal tendencies that can be examined and discerned for method of prevention.

It is known from recent USA Baseball sponsored research, for example, that the rate of catastrophic injuries in youth baseball is very infrequent (1 per million players in organized play). What is not known, because of the time and cost of research, is a valid awareness of the rates of lesser injuries in youth baseball. However, from accident insurance data, one can get a helpful picture of the patterns of "significant" injuries that are experienced during the fun of play.

Many youth baseball organizations provide accident insurance for their member teams to help defray the costs of medical attentions to baseball-related injuries not covered by the family's health insurance. It is encouraged that every injury that requires attention be reported at the time of injury in the event medical costs exceed that of the family's insurance (as well as for those without existing insurance). This provides a convenient resource because injuries that cause medical attention are the significant injuries of concern.

Pooling the combined insurance experiences of several youth baseball organizations in recent years, it was possible to look at patterns of injury by position of play when injured. NOTE: "Relative frequency", which is used for discussing "patterns", is in terms of percentage of all reported injuries, not in the number of reported occurrences.

That stated, field reporting of injuries experienced did not faithfully separate fielders by actual position so they were lumped together as "Fielders". It is then necessary to divide their injury frequencies by seven to compare "Fielder" with the one Catcher and the one Pitcher on the field when examining findings. Batters and Baserunners, however, had to be compared only against each other as the numbers would vary directly game by game. Further, while it was impossible to compare rates of injury by age group (pre-teen, early teen, and late teen) because the number at risk by each group is not known, it was possible to compare the patterns of injury from one age group to the others.

Essentially, it was found:

1. Pitchers, Catchers, and individual Fielders had a comparable relative frequency of injury in a season, as did Batters and Baserunners in comparison with each other. This was true across the age groups except that among the Pitchers/Catchers/Fielders, the proportion of Catchers among these positions tended to rise by age and the proportion of Fielders tended to drop by age.

2. The younger the age group, the more relatively frequent the injuries came from practice sessions, not the game itself. In addition, the younger the age group, the higher the relative frequency of injuries came from "before/after" baseball play (e.g., warm-ups and post-game horseplay) whether involving a game or a practice.

3. The Pitchers' injuries were much age- related. The older the pitcher, the more relatively frequent the injuries became non-contact in nature (about half of them). The younger pitcher was more apt to have the batted ball or thrown ball be the source of injury. Surprisingly, being slid/run into by Base runners at home plate was a modest but constant pattern among all age groups.

4. Catchers principally were injured either in catching the pitch or by tagging a Base runner, the former being more apt to occur the younger the Catcher, the latter being more apt to occur the older the Catcher. Also, the older the catcher, the more the "pitched ball" injury became in fact a "foul ball" injury.

5. Batters were obviously injured most frequently by the pitched ball (by a foul ball the older they were). The younger the batter, the more apt they were injured by a swung bat while getting into position. About a tenth of the injuries among the older Batter were of non-contact nature, i.e, some form of over-swinging.

6. For Base runners, each of the four bases contributed virtually equally to base-related injuries, but with home plate being slightly more involved than 1st Base. Further, across all age groups, essentially two-thirds of the injuries were from sliding and one-third from base-running itself. Again non-age-related, the base-running injuries were relatively almost equally from collisions, being hit by a thrown ball, and simply running itself (e.g., falling while running, stepping wrong on base, and non contact injuries).

7. Fielders' patterns of injury also were essentially non-age-related. About a third were at a base, about a tenth were in foul territory, and the rest "in the field". The younger fielder was more apt to be hit by the batted ball and the older fielder was more apt to be injured by the sliding opponent.

In summary, these discussed internal patterns are from the injuries that had been reported for insurance purposes, and are not how often a season the leagues' players are injured. The younger the player, the more relatively frequent are injuries associated with a lack of skill, and the older the player, the more that the power of maturity and skill becomes the injurious force. What helps in focusing on particular patterns of injury is shown to be access to ongoing injury data.