

WHAT DO THE FLEX NUMBERS MEAN ON A HOCKEY STICK?

- Hockey stick flex numbers refer to the stiffness of the stick.
- The number is a measurement of the amount of pressure required to bend the stick 1 inch.
- The higher the flex number, the stiffer the stick
- Retail model sticks generally range from about 30 for young kids up to 110

HOW IS FLEX MEASURED?

Sticks are placed on a machine, on held fast at each end. A mechanism centered between those two points presses down, bending the stick one inch, and measuring the amount of pressure it took. A 100 flex hockey stick would take 100 pounds of pressure to bend the stick one inch.

WHAT FLEX SHOULD I USE?

If you're new to hockey, you may be wondering how to choose a hockey stick with the correct flex. A good starting point is to take the weight of a hockey player (in pounds) and divide that number by 2. From there, you want to adjust the flex for height and strength.

COMMON FLEX OPTIONS BY PLAYER SIZE & AGE

Senior (5'3"+, 130 lbs.+)

75, 85, 100, 110

Intermediate (4'10" - 5'7", 80 - 160 lbs.)

60, 65, 70

Junior (3'10" - 5'2", 50 - 120 lbs.)

40, 45, 50

HOW TO CALCULATE HOCKEY STICK FLEX

In this example, we'll consider a player who is 5'8" and 180 lbs., with average height/strength and no stick cut.

1. Divide the player's weight (in lbs.) by two.
Example: for a player who weighs 180 lbs., $180 \div 2 = 90$.
2. Adjust for strength and height. Round up for taller and stronger players. Round down for players of average to below-average height or strength.
Example: for a player of average height/strength, round down from 90 to 85.

3. Adjust for stick length. If adding more than 3 inches, go up in flex. If cutting stick down more than 3 inches, go down in flex.

Example: for a player with no stick cut, no change.

The resulting flex is **85**, but remember that all numbers are meant as a starting point and guide for players trying to find the best fit for them and their game.

OTHER THINGS TO CONSIDER WHEN CHOOSING A HOCKEY STICK FLEX

Stick flex is a very personal choice and many factors come into play when deciding the best flex for you as a player.

Position - A forward taking a lot more snap/wrist shots might prefer a softer flex, while a defenseman taking more slap shots might prefer a stiffer flex.

Style of play

Shooting style - Players with shorter, quicker shooting motions often prefer softer flex to load the stick quicker and more easily, versus a player with a booming slap shot who fires away from a distance.

Players will gain a better understanding of the impact of each of these factors, as well as which are most important to them personally as they play and try out different flexes.

HOCKEY STICK FLEX QUESTIONS:

DOES CUTTING DOWN A STICK DOWN, OR ADDING AN EXTENSION CHANGE THE FLEX?

The simple answer is yes, a shorter stick will feel stiffer and will perform more similarly to a stick with a higher flex number. A longer stick will feel softer and will perform more like a stick with a lower flex number. Cutting a stick doesn't alter the structure of the composite, but will affect how the stick feels and plays. Many brands have measurements on the back of the stick, showing what flex the stick will feel like if cut to that length.

WHY DO DIFFERENT HOCKEY STICKS WITH THE SAME FLEX RATING OFTEN FEEL DIFFERENT?

Different sticks with the same flex number can feel different for two main reasons:

1. Every manufacturer measures flex differently. Some measure from the very ends of the stick, while others measure from slightly down the handle and up the taper. This can lead to some variation in how stiff the same flex rating feels.
2. Different models have different flex profiles. A flex profile describes where the stick is stiffest or softest along the shaft and dictates how the stick loads energy. Depending on where a specific model flexes the most, it will load easier and give the impression of being softer, or play like a stiffer hockey stick.

WHO CARES ABOUT FLEX? WHY IS IT SO IMPORTANT?

Feel like hockey stick flex is over-hyped? If you're a good player, you can just grab any stick off the shelf and snipe, right? As mentioned above, stick flex choice is highly personal. The characteristics & benefits that one player considers high priority could be very unimportant to another player. Below are some of the pros and cons of using a stiffer or softer flex stick. Keep in mind that even for professionals, these benefits reach a point where they start to have an adverse affect if a player goes overboard by using a stick that is far too stiff or soft.

ADVANTAGES OF USING THE RIGHT HOCKEY STICK FLEX FOR YOU:

Using a stiffer stick may:

Improve accuracy when shooting because there is less energy loaded into the stick, causing less stress on the blade. With less stress, the blade is less likely to twist back and therefore more likely to remain square to your target.

Using a softer stick may:

Create more velocity as the player is able to flex the stick further and load more energy.

Disadvantages of using the incorrect flex

Using a stiffer stick may:

Reduce power & velocity because the player cannot flex the stick as much and is unable to load as much power into it.

Lead to recoiling & releasing before your hands come through the shot, causing the puck to flutter off the blade.

Ring or vibrate in your hands because the stick is too stiff to absorb the impact of shots or passes.

Using a softer stick may:

Cause slightly less accurate shots because the increase of stress on the stick can cause the blade to twist back off target more.

Not recoil and release quickly enough, causing your hands to get too far in front of the puck, making shots feel slow or weak.

HOCKEY STICK FLEX & YOUNGER PLAYERS

Proper hockey stick flex is even more important for younger players. Without the proper flex, younger players will need to compensate for a stick that's too stiff or too soft. This can create bad habits and prevent them from developing the proper shooting techniques. A young player using too stiff a stick can't load energy into it and will often resort to flicking or sling-shotting the puck for velocity or to get it in the air. They'll also run into the same problems as grown players using the wrong flex, like losing power or accuracy when shooting.