

## NHL GUIDE 23-24 STATS GLOSSARY

## By Adam Burke

Advanced stats are here to stay. They are the fabric of high-level analysis across all sports and that includes the NHL, where the analytics movement has been gaining steam for a long time now.

Our 2023-24 NHL Betting Guide will include a lot of stats and abbreviations that you may not be all that familiar with, but they are stats that you will want to keep in mind as you read and as you bet on games throughout the season.

To illustrate why these stats are important, let's use shots on goal as an example. A shot on goal is any puck shot towards the net that would go in if there was not a goalie standing there. Not all shots are created equal, though. A dump-in on net from the red line is not nearly the same as a rebound chance right in front of the goal. A cross-crease one-timer is not the same as a puck flipped on net by a forward during a 1-on-2 rush so that his team can get a whistle and a stoppage of play do not have the same chance of becoming a goal.

Some of the stats incorporated by Jonny Lazarus in the team previews are examples of why higher-level analysis is needed to quantify the quality of shots on goal.

To take it a step further, let's talk about scoring chances. Is a shot a bad shot because it hit the post or because it missed the net by a couple of inches? It's not a shot on goal because it wouldn't have gone into an empty net, but it is a way more dangerous scoring chance than a run-of-the-mill shot on net. That's why stats like "high-danger chances" or "scoring chances" exist.

To borrow an example from baseball, a line drive hit 100 mph has a better chance of becoming a hit than a ground ball hit at 80 mph. Sometimes that line drive goes right at a fielder. Sometimes that ground ball squeaks through and finds a hole. The line drive was a better form of contact, but the outcome was unlucky. The ground ball was a weaker form of contact, but the outcome was lucky.

Similarly, hockey has stats like "Expected Goals" to showcase the quality of scoring chances based on a variety of factors, including where the shot came from and the likelihood of scoring in that situation.

Game state is also important in the NHL. Of the six major North American sports, hockey is the only one where a team can be forced to play with fewer people than the other team. As a result, it is important to differentiate statistics based on how many people are on the ice for each team.

With that primer in mind, let's look at some of the stats used throughout the NHL Betting Guide and explain what they mean.

## **BASIC STATS**

## G, A, P

 ${\sf G}$  is short for goals, A is short for assists, and P is short for points. All goals and assists are "points".

## **Goals Against Average**

Think of Goals Against Average (GAA) like ERA (think I'm a baseball guy?!) In baseball, ERA is (earned runs \* 9) / innings pitched. In hockey, GAA is (goals against \* 60) / minutes played. It is meant to show the average number of goals allowed per game played, assuming the goalie plays all 60 minutes. That stat is displayed to two decimal places, so 3.00, 2.50, etc.

## Save Percentage

Save Percentage (SV%) is straightforward. Saves / Shots Against. If a goalie stops 27 out of 30 shots in a game, his SV% is 90%, but the stat is displayed as a decimal, so .900. The league average SV% last season was .899.

## **Power Play Percentage**

A power play is a period of time in which one team has more players on the ice than the other. Teams scored an average of 21.31% of the time on the power play last season.

## Penalty Kill Percentage

A penalty kill is when a team has fewer players on the ice than the other. Teams killed off an average of 78.69% of penalties last season.

## **Scoring Chances**

A scoring chance is different from a shot on goal. Shot attempts are assigned values based on a variety of factors and scoring chances have a higher than normal likelihood of becoming goals than regular shots.

## **ADVANCED STATS**

## **Even Strength**

Even strength means both teams have the same number of skaters on the ice, so 5-on-5, 4-on-4, or 3-on-3, with the exception of pulling the goaltender to add an extra player. That is still considered even strength since a skater replaces a goalie, but the same number of players are still on the ice for each team.

## 5-v-5/5-on-5

This is the most common state of an NHL game. This is different from even strength because that can happen at 4-v-4 or 3-v-3. Most advanced stats websites will have filters for 5-v-5, 5-v-4, 5-v-3, 4-v-4, etc. Another term for this is "game state". 5-v-4 would be a power play, for example.

## **All Situations**

Jonny cites some of his stats with "in all situations". That encompasses all game states throughout regulation and overtime, so 5-v-5, 5-v-4, 5-v-3, 4-v-5, 3-v-5, 4-v-4, and 3-v-3.

## "Per 60"

Other stats that Jonny cites are "per 60", meaning the "rate per 60 minutes". To calculate that, the formula is (Stat \* 60) / TOI (time on ice).

## **Expected Goals (or xG)**

Without diving too deep into the weeds, this is a stat composed of a lot of pieces of information including where the shot was taken (including distance and angle), what kind of shot it was, how quickly the shot was taken after another (rebound; less time for the goalie to get into position), and several other variables to calculate a "goal probability".

Shots in the middle of the ice are going to have a higher goal probability than a shot taken from the side of the net or from far away. Only unblocked shot attempts are calculated, so if a shot is blocked by a forward or a defenseman on the way to the net, it is not tracked.

Modifications of this stat like xGF (Expected Goals For) or xGA (Expected Goals Against) add a team-specific element.

Individual players or goalies with higher or lower xG marks may be either getting lucky or unlucky and that could be a sign of some positive or negative regression.

## Goals Saved Above Average (GSAA)

GSAA is a really popular metric for goalies that sounds complicated, but it isn't. Take the league average save percentage and adjust for the number of shots that a goaltender has faced. If a goalie has a .925 save percentage, which is well above the league average of .899, then you can calculate how many goals saved above an average goaltender he is based on the number of shots that he has faced.

## **High-Danger Scoring Chances (HDSC)**

As mentioned above with scoring chances, each "chance" is assigned a value. High-danger scoring chances have the highest expected value, so think about a rebound chance right in front of the net or a shot in the middle of the ice between the faceoff circles. These are the worst for a team to give up on defense and the best for a team to generate on offense.

Offshoots of this stat include HDSH% (High-Danger Shooting Percentage) and HDSV% (High-Danger Save Percentage). You can look for positive or negative regression based on those two stats with how lucky or unlucky a team has gotten in either category.

Last season, the Blue Jackets had a 14.38% HDSH%, while the Kraken led the league at 19.88%.

The Bruins were the best at HDSV% at 93.87%, while the Kraken were the worst at 79.75%.

There are also Medium-Danger Scoring Chances and Low-Danger Scoring Chances. The better a team plays defensively, the more low-danger chances they will allow compared to other types of chances.

Sites like Natural Stat Trick, Evolving Hockey, MoneyPuck, and others are good places to get these stats and work them into your handicapping.



# STEVE MAKINEN'S POWER RATINGS

TEAR	DOWED DATING
TEAM	POWER RATING
CAROLINA	3.94
NEW JERSEY	3.81
COLORADO	3.79
EDMONTON	3.58
TORONTO	3.56
DALLAS	3.53
NY RANGERS	3.40
VEGAS	3.38
BOSTON	3.35
LOS ANGELES	3.31
FLORIDA	3.30
PITTSBURGH	3.13
TAMPA BAY	3.12
CALGARY	3.08
MINNESOTA	3.06
SEATTLE	3.01
BUFFALO	2.74
NY ISLANDERS	2.69
WINNIPEG	2.66
OTTAWA	2.59
VANCOUVER	2.49
NASHVILLE	2.48
DETROIT	2.38
ST LOUIS	2.37
WASHINGTON	2.22
ARIZONA	2.19
PHILADELPHIA	2.10
COLUMBUS	1.96
CHICAGO	1.92
ANAHEIM	1.82
MONTREAL	1.77
SAN JOSE	1.61



## PHILADELPHIA Flyers

METROPOLITAN DIVISION

Steve Makinen's Power Rating 2.10 (#27 of 32)

2.10 (#270/32)

Odds to Win the Stanley Cup 150-1

It was an ugly 2022-23 season for the Philadelphia Flyers, but now, just like their NBA team, it's time to "trust the process". There is a culture shift going on in the city of brotherly love with Keith Jones as the new President of Hockey Operations. This group will be in the basement of the division yet again, but this season is all about building a foundation for the Flyers.

## **OFFENSE**

Losing Kevin Hayes and James Van Riemsdyk probably isn't what was best for the Flyers' offensive production, but these moves were necessary. With that said, this team had some health issues last year with Sean Couturier and Cam Atkinson, but those two are fully healthy going into 2023-24. The Flyers had the fourth worst offense last season, only scoring 2.68 goals per game and they had the league's worst power play at 15.6%. This team will struggle to score goals again, but there should be some improvement from last year.

## **DEFENSE**

The Flyers weren't good in their own end last season, but they also weren't as horrendous as people may have expected. Let's face it, this is not a very strong blue line, but with John Tortorella as the bench boss, you can always count on this team to compete. The Flyers finished in the bottom half of most defensive metrics last season, like high-danger chances against per 60 (13.31) as well as expected goals against per 60 (3.18). They will most likely finish in a very similar spot this season.

## **GOALTENDING**

The early years of Carter Hart's career have been something of a roller coaster ride. He has the potential to be an elite goaltender in the NHL, but he just has to find consistency in his game. Of course, that's much easier said than done, especially if the group in front of him isn't strong, but Hart has a lot of potential. The Flyers brought in Cal Petersen to back him up after he had an off year in Los Angeles, but Petersen also has some promise. A fresh start could be good for him.

## **PLAYER TO WATCH - F MORGAN FROST**

The Flyers 2017 first-round pick had a strong 2022-23 season, tallying 19 goals and 27 assists. This season, it is more likely than not that Frost will take on the responsibility of playing as the top-line center. The Flyers have very high hopes for this 24-year-old and this could be his break-out season with all of the opportunities that he is bound to get.

## **OUTLOOK**

The Flyers will take a step in the right direction this season, but ultimately, they will finish in the bottom 10 of the league yet again and probably in eighth in the Metropolitan Division.

## **2022-23 IN REVIEW**

Record (W-L-OTL) **31-38-13** 

Over/Under

42-39-1

Against the Spread **37-45** 

**2.68** (#29 of 32)

Goals Scored
Per Game

3.37 Goals

Goals Allowed
Per Game

**15.6** (#32 of 32)

(#23 of 32)

Power Play Percentage

**74.7** (#26 of 32)

Penalty Kill Percentage

**0.72** (#29 of 32)

Goals Scored in 1st Period

1.00 (#23 of 32) Goals Allowed in 1st Period



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