NFL **NFLPA**

2020 HELMET LABORATORY TESTING PERFORMANCE RESULTS

BETTER LABORATORY PERFORMANCE

Schutt F7N (208100)[3]

Schutt F7 VTD II (208801)[3]

Schutt Air XP Pro Q11 LTD (788600)[3]

Riddell SpeedFlex Precision Diamond (R41106)[1]
Riddell SpeedFlex Precision (R41156)[1]
Riddell SpeedFlex Diamond (R41175)[New]
Xenith Shadow XR[New]
VICIS Zero1 (2018)
Schutt F7 LTD (208400)
Schutt Air XP Pro VTD II (789902)
Schutt F7 UR1 (208300)[1,New]
Schutt F7 UR2 (308300)[1,New]
Riddell SpeedFlex (R41195)
Schutt Vengeance DCT (204001)
Xenith Shadow[New]
Riddell Speed (R41190)
Xenith Epic+
Xenith Epic
Riddell Revolution Speed Classic (R41167)
Riddell Foundation (R41179)
Riddell Speed Icon (R41197)
Schutt Vengeance DCT VTD II (204801)
Xenith X2E+
Riddell Speed Classic Icon (R41198)
Riddell Revolution (R41139)
Xenith X2E
Riddell Revolution IQ (R41159)
Schutt Air XP Pro Q11 (788700)
Schutt F7 (208000)
Schutt F7 VTD (208800)
Schutt F5 (208200)
Schutt Vengeance Pro LTD (204400)
Schutt Vengeance Z10 LTD (204200)
Schutt Air XP Pro Q10 VTD (788910)

NOT RECOMMENDED

Schutt Vengeance Pro (204301)
Schutt Air XP Pro Q10 (788900)
Schutt Vengeance Z10 (204101)

NEWLY PROHIBITED LIGHT LS1 Composite (LS1-CV)[2, New]

[1] Results shown are for a helmet with interior padding customized for the testing headform. Actual performance and ranking may vary since these helmets are customized for each player's head shape.

[2] The LIGHT LS1 Composite helmet joins a list of 12 previously prohibited helmets according to the NFL and the NFLPA's joint Helmet Laboratory Testing program.

[3] Three new helmet models have been tested since the 2020 helmet poster analysis was released in April 2020. A new statistical grouping analysis has not been performed. As such, arrows have been used to show how the laboratory performance of these new models ranked relative to the groupings from the 2020 poster.

Note: Older models worn by less than 1% of NFL players are grayed-out.
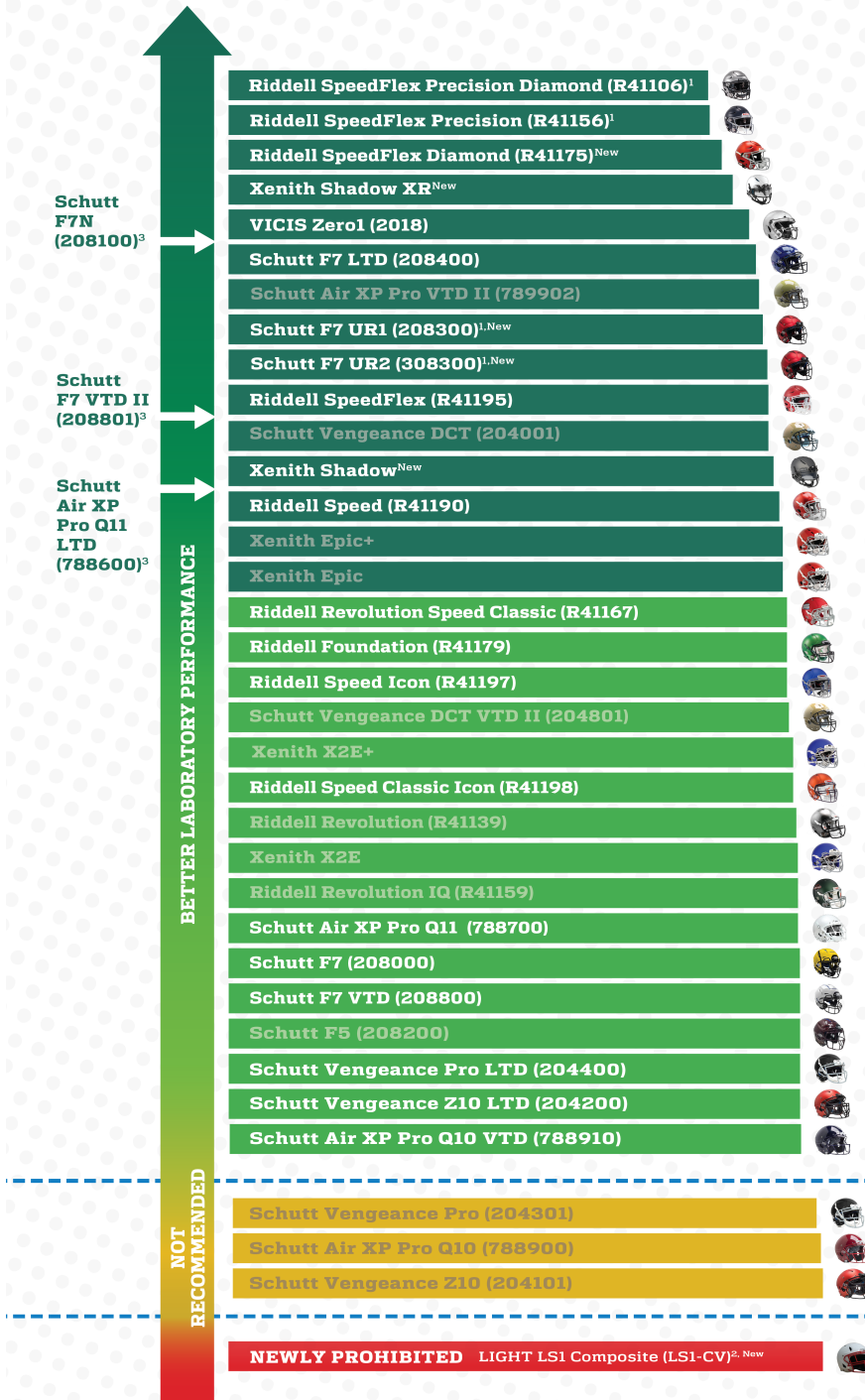
THE NFL, IN COLLABORATION WITH THE NFLPA, THROUGH THEIR RESPECTIVE APPOINTED BIOMECHANICAL EXPERTS, ANNUALLY COORDINATE EXTENSIVE LABORATORY RESEARCH TO EVALUATE WHICH HELMETS BEST REDUCE HEAD IMPACT SEVERITY. THE RESULTS OF THOSE TESTS, WHICH ARE GENERALLY SUPPORTED BY ON-FIELD PERFORMANCE, ARE SET FORTH ON THIS POSTER.

The helmet models are listed in order of their performance, with a shorter bar representing better performance. The rankings are based exclusively on the ability of the helmet to reduce head impact severity measures in laboratory testing. Performance variation related to helmet fit, retention, temperature-dependence, and long-term durability are not addressed in these rankings.

All helmets in green are recommended for use by NFL players. Based on a statistical grouping analysis, helmets in the Top-Performing group have been further distinguished into two different green categories. The darker green group represents those that performed better in laboratory testing than the lighter green group. Helmets with poorer laboratory performance were placed in the Not Recommended or Prohibited groups. Players may not wear helmets in the Prohibited group. The information presented here is based solely upon the results of this research and the expert opinions of the scientists involved.

Pursuant to the NFL's rules, players are required to wear helmets that are: (1) certified based on the standards established by NOCSAE (National Operating Committee on Standards for Athletic Equipment); (2) less than 10 years old; and (3) not prohibited pursuant to the NFL and the NFLPA's joint Helmet Laboratory Testing program.

The laboratory test conditions were intended to represent potentially concussive head impacts in the NFL. The results of this study should not be extrapolated to collegiate, high school, or youth football.