Nick Seeler

Minnesota Wild

Defence	Shoots Left
Ht: 188 Cm	Wt: 95 Kg

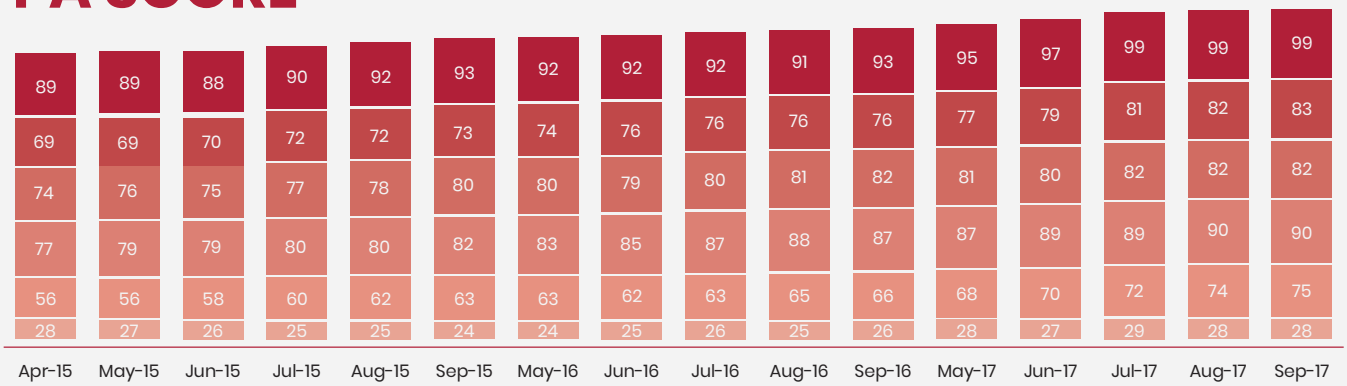
PLAYER REPORT

26 MAR 2018

76

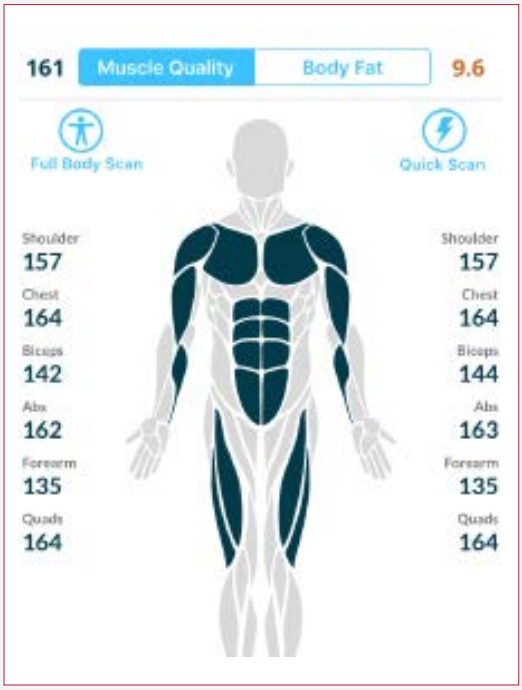
- TAP **99**
- SKULPT **163**
- NUTRITION **75**
- SLEEP **83**
- SESSION **90**
- EXPERIENCE **28**

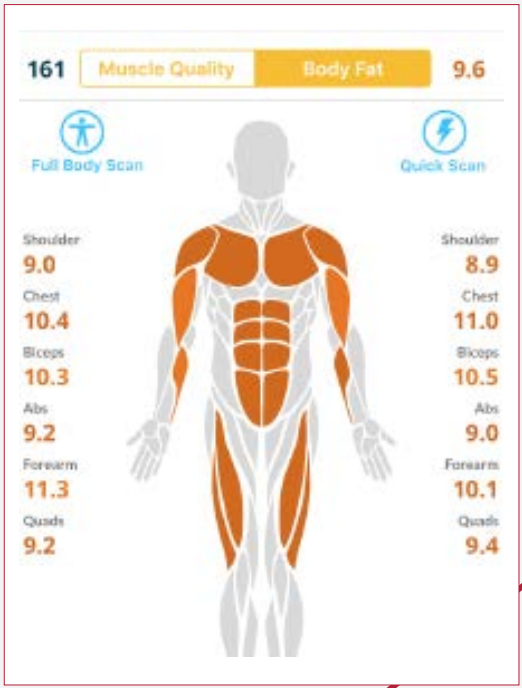
PA SCORE

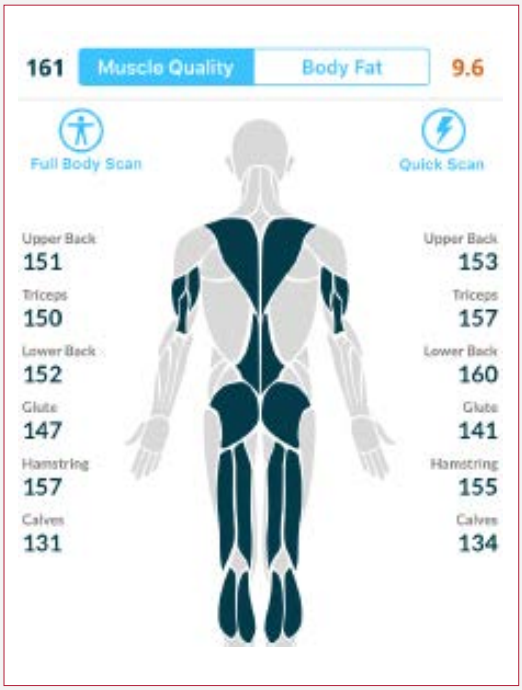


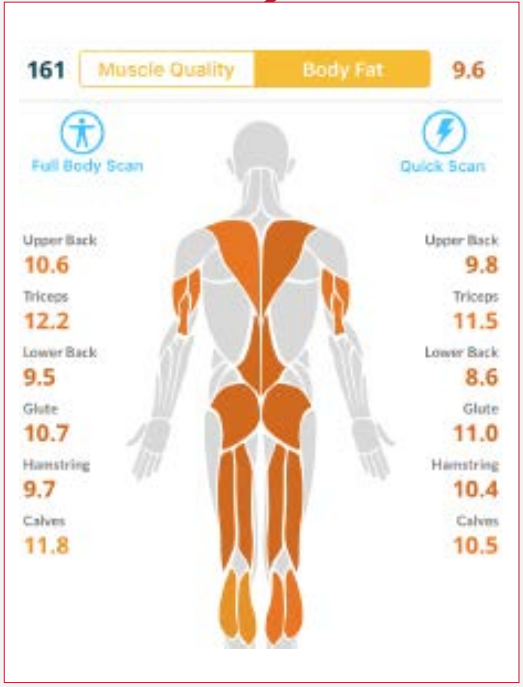
Nick's overall TAP score of 99 is in the top 1% of over 30,000 professional athletes who have taken the assessment. The TAP was built to identify the positive characteristics and behavioral indicators of athletes. The TAP score is an aggregate of mental toughness, coachability, and mental performance. The SKULPT is a non-invasive, painless approach to muscle assessment based on the application and measurement of high frequency, low intensity electrical current. The SKULPT is a composite measurement of muscle quality and body fat taken from 24 individual sites. Nick's SKULPT score of 163 is among the top 1% in our curriculum, and the top 5% globally. The EXPERIENCE score is calculated from the athlete's age, the number of sports an athlete has played over their entire career, and the number of seasons the athlete has played each of those sports. Lastly, the number of training sessions an athlete completes is a principle component of the EXPERIENCE score.

The Performance Athletix (PA) Score is the collection of six sub scores: TAP, Sleep, Skulpt, Session, Nutrition, and Experience. Athletes have limited control over many things in their environment. Because there are so few things that an athlete can control, our curriculum champions behavior changes instead of outcomes. Athletes can optimize or adapt, but not both. The PA Score allows us to focus on the greatest areas of need with regard to performance. Whether the greatest challenge is a good night's sleep, a change in diet, or mental toughness. Athletes will associate taking action and showing up versus max lifts or numbers on a scale. Results are unpredictable; behaviors are controllable, and long-term behavior change leads to sustainable outcomes.









SKULPT

The Skulpt Score is calculated from two sub-scores. The Muscle Quality score starts with the whole-body muscle quality score from the Skulpt app. That number is divided by two then multiplied by the asymmetry ratio. The asymmetry ratio is calculated by dividing the larger of the two numbers for a muscle (right, left) by the smaller, then averaging the ratio of all muscles measured. The Body Fat Score is calculated from the measured value of the athlete and is scored accounting for gender and the baseline of the athlete.

TRAINING COMPLIANCE ADHERENCE

					01	02
03	04	05	06	**07**	08	09
10	11	12	13	**14**	15	16
17	18	**19**	20	**21**	22	23
24	25	26	**27**	28		

The optimal ratio for training compliance adherence is individual in nature. Some athletes can train with higher volume and frequency than others. In our curriculum, we have a concurrent strategy that has a 1:1 ratio of strength to performance. For the month of September 2017, Nick Seeler missed 1 strength and 1 performance day out of a possible 14 of each, which is a TCA of 93%. Every 7th day of Nick's curriculum is a prescribed rest and recovery day. At any given point in our curriculum, we can split volume and frequency into two or three sessions per day to optimize a desired outcome. Skating, shooting, and stick handling are all variables taken into consideration in managing training load and performance outcomes.

NUTRITION COMPLIANCE ADHERENCE

					66	60
88	85	79	84	99	72	62
57	94	78	83	88	71	89
70	60	89	58	76	62	91
83	79	73	**70**	71		

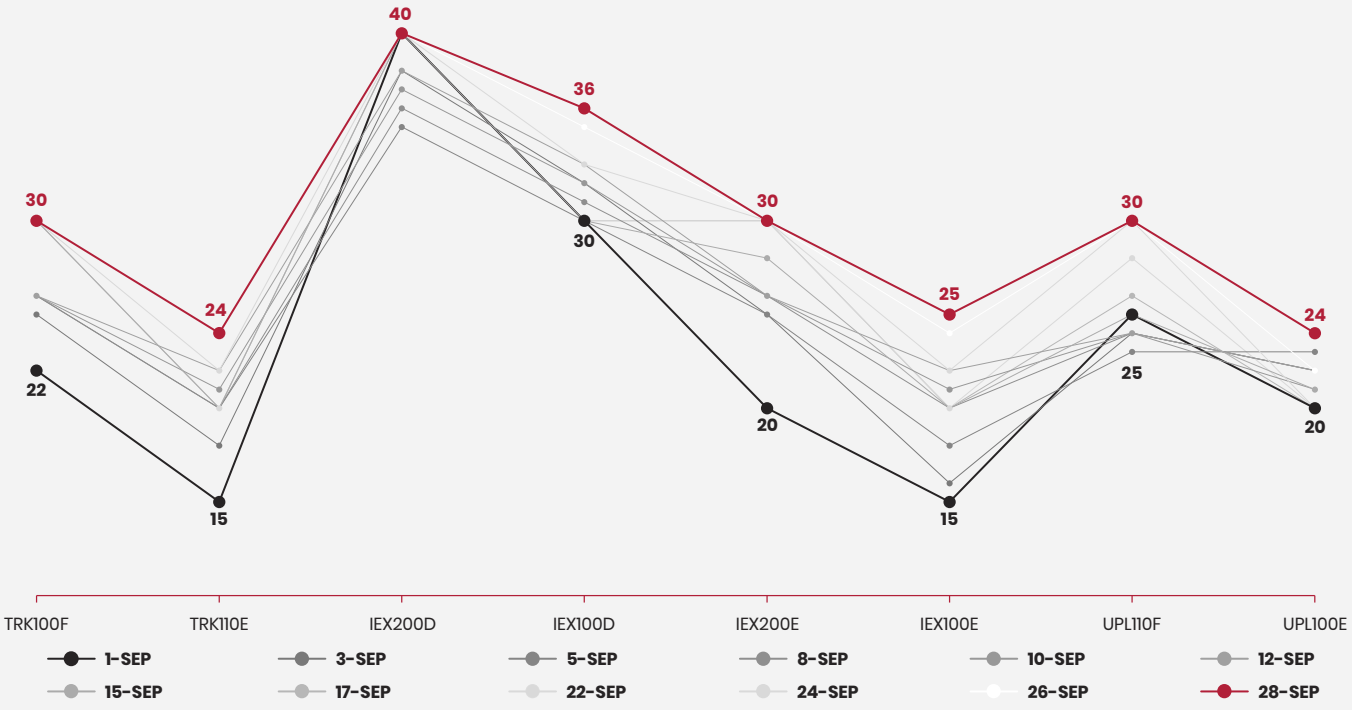
The optimal ratio for nutrition compliance adherence is 90%. Every athlete has 16 total hours, or 8 eight two-hour windows, to maximize total caloric intake, nutrient timing, and their individualized macronutrient split. The numbers represent the nutrition score for each day. A daily score above 90 is considered optimal, 89-80 is good, 79-70 is acceptable, 69-60 is poor, and below 60 is very poor. Only the daily scores that are acceptable or better are used when calculating NCA. Nick achieved a score of 70 or higher in 20 of the 28 possible opportunities, which is an NCA of 71%.

SLEEP COMPLIANCE ADHERENCE

					80	94
60	64	89	65	99	70	65
82	71	67	70	84	74	83
86	66	74	86	55	87	50
97	89	59	90	70		

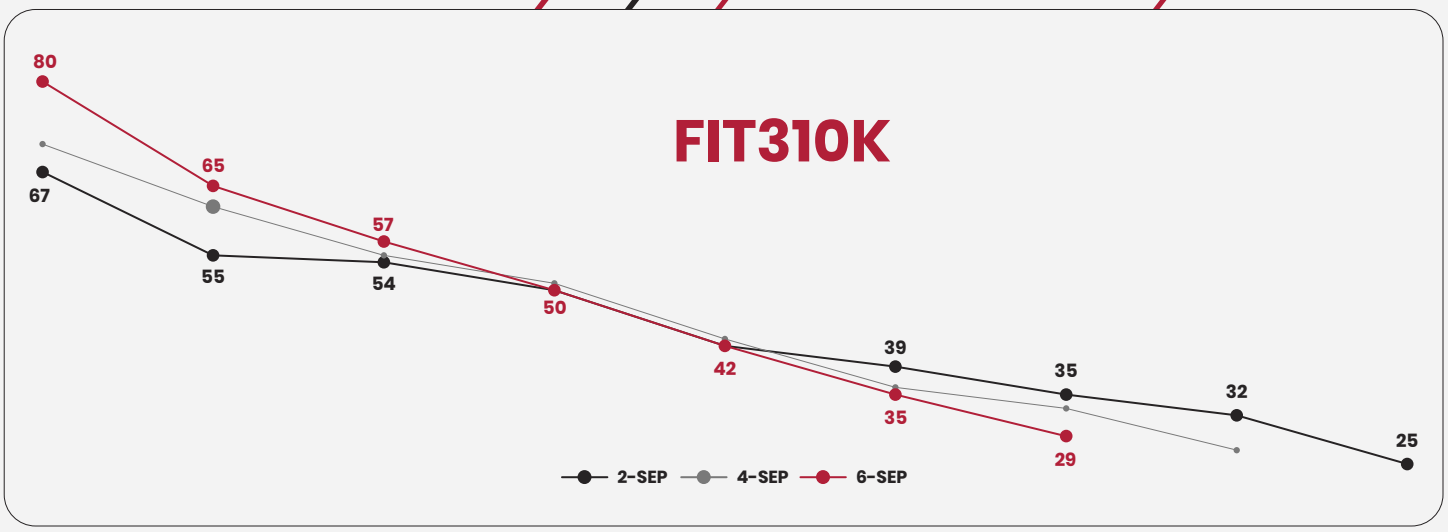
The optimal ratio for sleep compliance adherence is 90%. Every athlete has 10 total hours, or 8 hours plus a 2-hour nap, to maximize rest and recovery strategies. The numbers represent the sleep score for each day. A daily score above 90 is considered optimal, 89-80 is good, 79-70 is acceptable, any score below 70 for 3 consecutive days requires medical intervention. Nick has trouble getting good quality sleep and has never been able to take naps. His 71% SCA, while not optimal, has been sufficient for Nick to make significant development in the last 28 days.

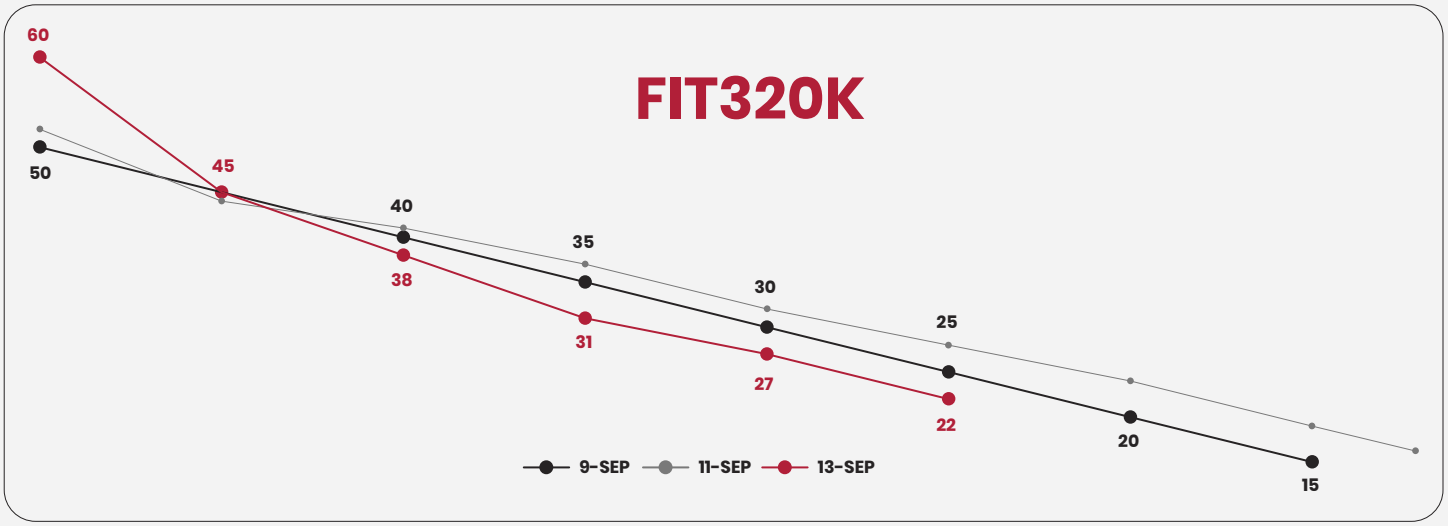
L2 STRENGTH



The alpha-numeric labels represent the area of emphasis, the direction of force, the level of difficulty, and the movement velocity. The black line represents the BASELINE of three non-consecutive strength training sessions. The numbers inside the dots are representative of optimal execution of technique in those movements. Each one of the 12 gradient lines denotes subsequent strength training sessions and the corresponding date those training sessions were completed. The criteria to advance to a more difficult strength training curriculum is to improve the overall output of perfect repetitions by a minimum of 20%. The RED LINE delineates the best performance in each of the 8 movements in this curriculum after 12 sessions. To summarize, Nick increased his output by greater than 20% in half or more of the 8 movements in this curriculum and would therefore advance to a more difficult protocol.

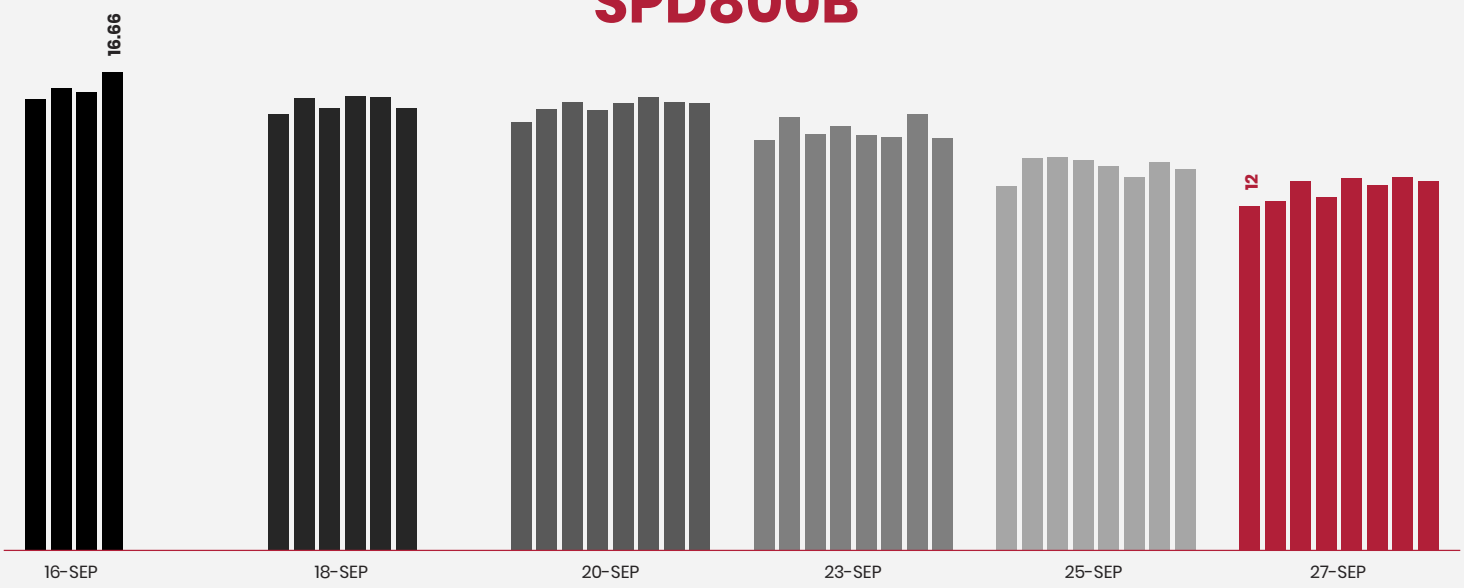
As our standard continues to push the boundaries and limits of performance at all levels in sport, the importance of well-balanced and efficient training becomes integral in the success of youth, high-school, collegiate, and professional athletes. The immediacy of feedback is the most important characteristic of any training protocol. To that end, over the last 5 years, and aided by many technological advances, our coaches and support staff have become more focused on the integration of monitoring the training process and the positive behaviors associated with successful outcomes. There is a delicate balance between optimization and adaptation in training. Too much load can lead the athlete to become over-fatigued, under-recovered, and at an increased risk of injury. Insufficient stimulus will not elicit any physical or mental increases or improvements in training either. Genes load the gun, habits pull the trigger.





The alpha-numeric labels represent the cardiovascular/cardiorespiratory component of fitness, the ongoing development of energy systems (O2 / LA-Glycolytic / ATP-Pcr), and the intensity of work performed (time / speed / distance). The black line represents the BASELINE of three non-consecutive fitness training components of a performance training session. The RED LINE delineates the best performance on any given line graph. The numbers inside the dots indicate the maximum amount of time in seconds Nick could sprint with optimal technique. An athlete must complete a minimum of 3 non-consecutive fitness training sessions in any performance training protocol. The last non-consecutive day of FIT310K, Nick covered more distance in less time with the same amount of recovery. His first sprint (80sec.) and next 5 sprints were equal or greater than the sprint times he ran on the first day. Because he was able to increase his efficiency by 10% in one week, he advanced to a more difficult protocol. With greater intensity and less recovery, the emphasis of FIT320K moves closer to the development of speed. For Nick and any hockey player, more importantly a defenceman, a high VO2max is the foundation of elite performance.

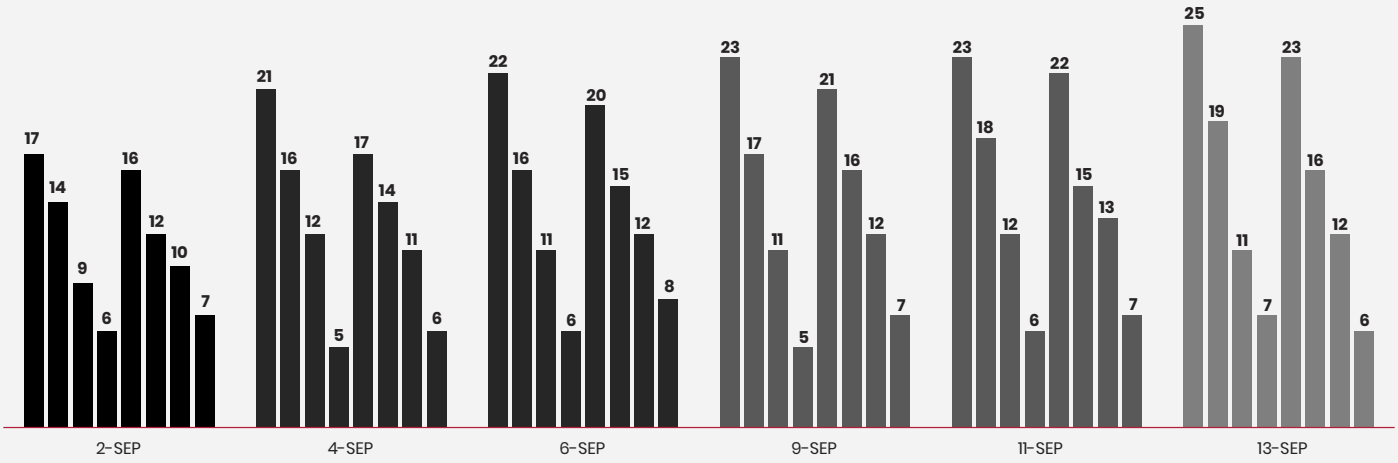
SPD800B



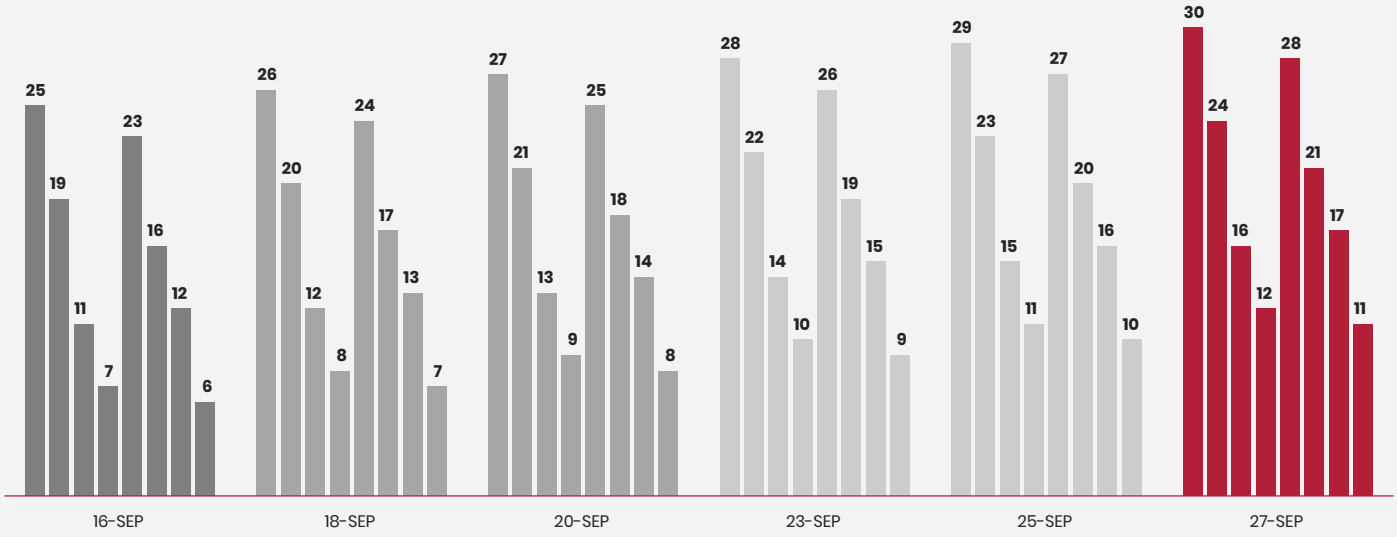
SPD800B

The alpha-numeric labels represent the cardiovascular/cardiorespiratory component of speed, the ongoing development of energy systems (O2 / LA-Glycolytic / ATP-Pcr), and the intensity of work performed (speed / time / distance). These six SPD800Bs are the final 6 non-consecutive sessions of the fitness training components of performance training. The uppermost bar graph delineates the time required to sprint 100m, and the bottom graph delineates the calculated speed in m/s. The black bars represent the BASELINE; the RED BARS represent the fastest speed of the last completed session. The numbers on top of the bars indicate the worst and best time/speed that Nick could sprint with optimal technique. On September 16th, Nick established a baseline of 16.66 seconds which is a speed of 6 m/s. Fast forward to September 27th, Nick covered the same distance but in 4.66 fewer seconds. His fastest speed of 8.33 m/s is an improvement of 38%. The volume and frequency are individual in nature. The minimum requirement for advancement to a more difficult protocol is a 50% increase in total output from the BASELINE in a minimum of 12 sessions. As you can see here, Nick was able to accomplish this feat on the 8th session. We continued in this protocol through 12, because we wanted to see an increase in perfect repetitions in subsequent sequences compared to earlier sessions.

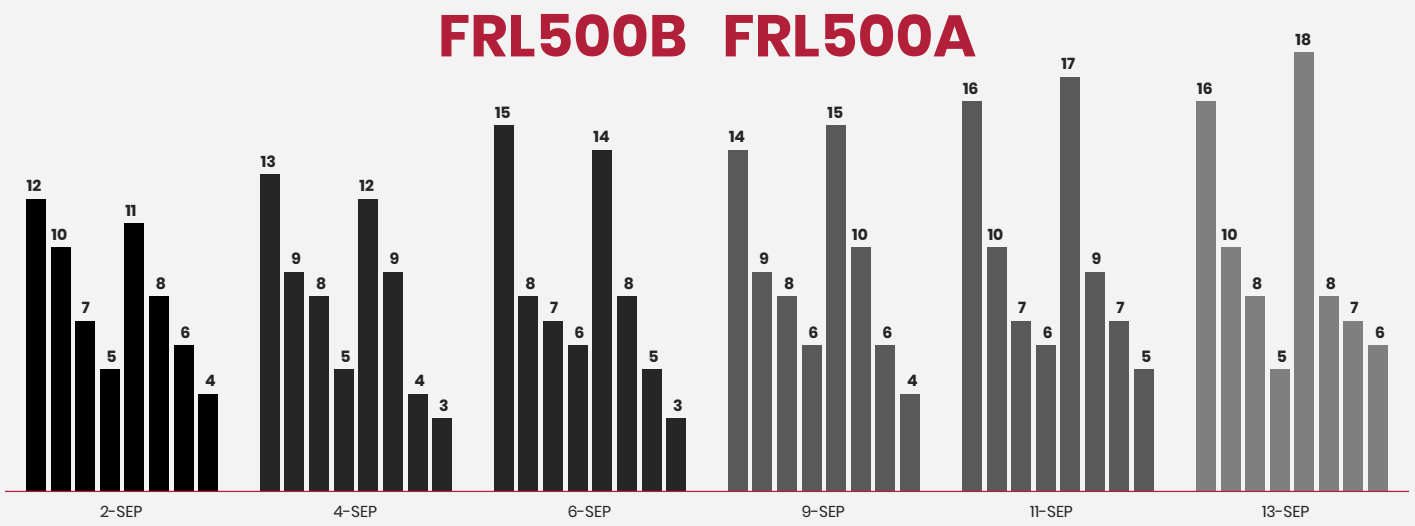
FRU400B FRU400A

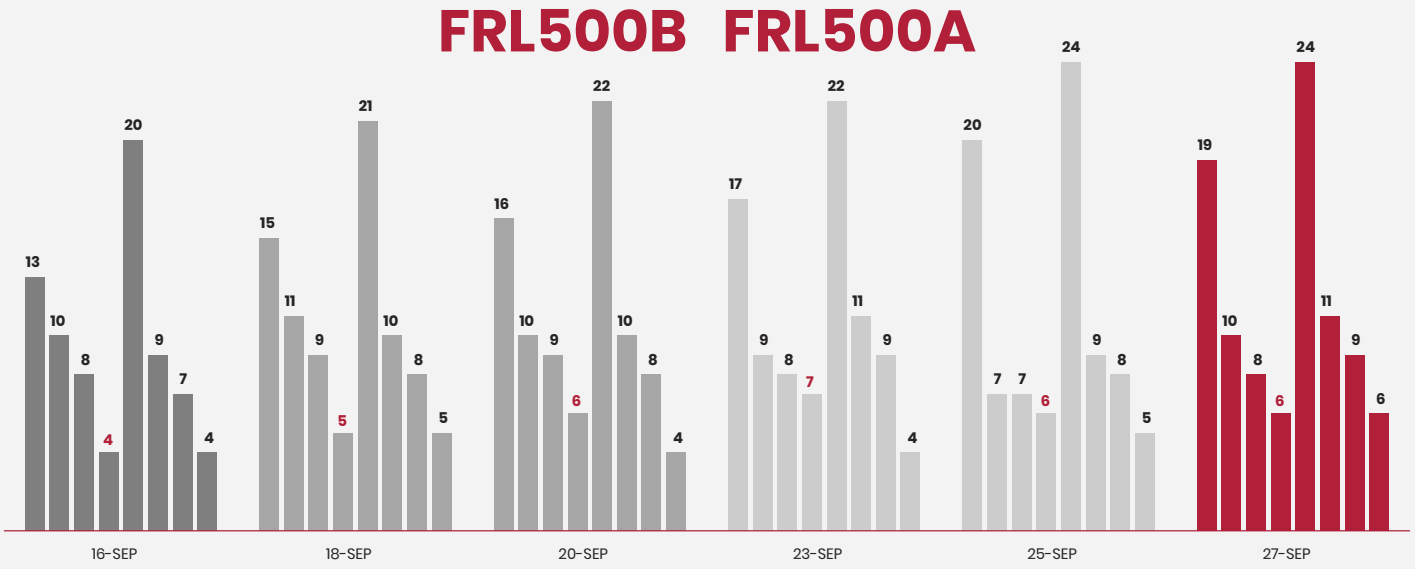


FRU400B FRU400A



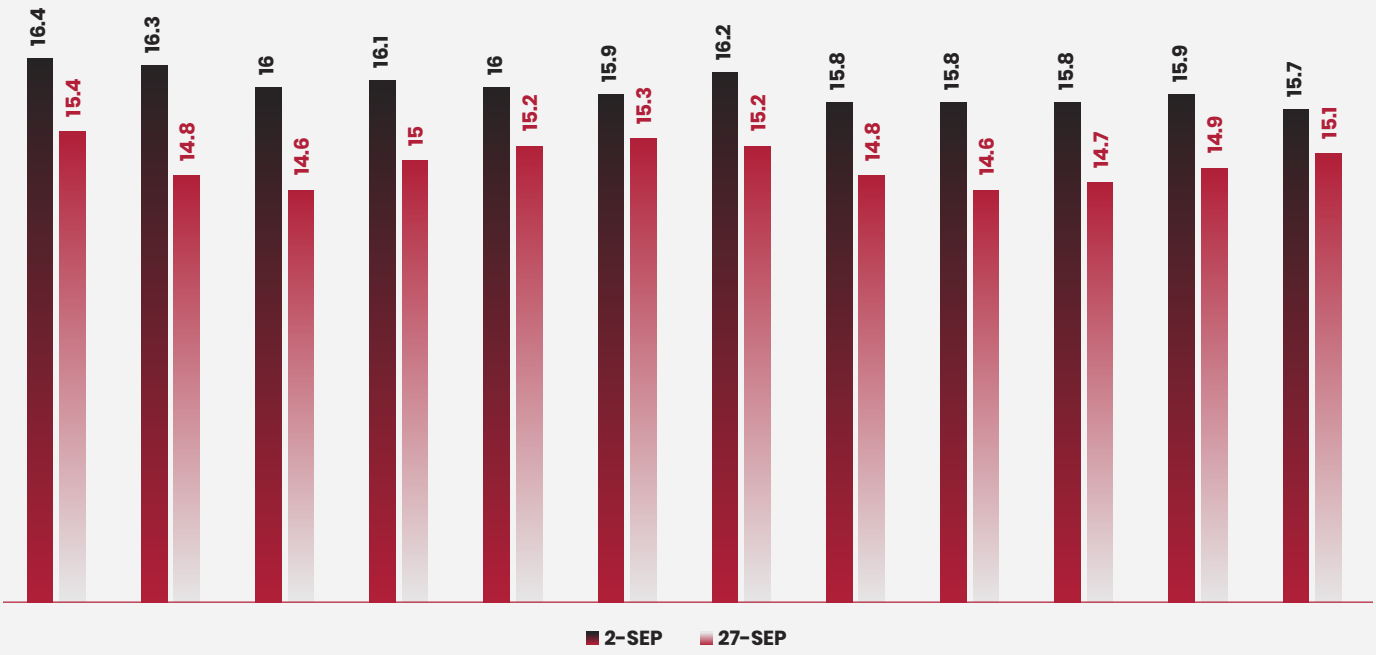
The alpha-numeric labels represent the cardiovascular/cardiorespiratory component of force, the ongoing development of energy systems (O2 / LA-Glycolytic / ATP-Pcr), and the intensity of work performed (repetitions). FRU400B is a unilateral, seated, left arm, twisting movement. The areas of emphasis are trunk stabilization, shoulder co-contraction, and wrist mobility. The load of the implement is 14kg. Force production of this movement is high, and the velocity of this movement is low. The black bars represent the BASELINE for three non-consecutive upper body force training components of a performance training session; the RED BARS represent the 12th completed session. The numbers on top of the bars indicate the maximum number of repetitions that Nick performed with optimal technique. On September 2nd, Nick established a baseline of 17 perfect repetitions with his left arm and 16 with his right arm. Fast forward to September 27th, Nick nearly doubled his output with his left arm and right arm by performing 30 repetitions and 28 repetitions; which is an increase of 76% and 75% respectively. The minimum requirement for advancement to a more difficult protocol is a 50% increase in total output from the BASELINE in a minimum of 12 sessions. As you can see here, Nick was able to accomplish this feat on the 8th session. We continued in this protocol through 12, because we wanted to see an increase in perfect repetitions in subsequent sequences compared to earlier sessions.





The alpha-numeric labels represent the cardiovascular/cardiorespiratory component of force, the ongoing development of energy systems (O2 / LA-Glycolytic / ATP-Pcr), and the intensity of work performed (repetitions). FRL500B is a unilateral, standing, left leg, vertical propulsion movement. The areas of emphasis are trunk stabilization, hip flexion/extension, and knee/ankle mobility. The load is the athlete's own body weight. Force production of this movement is high, and the velocity of this movement is low. The black bars represent the BASELINE for three non-consecutive lower body force training components of a performance training session; the RED BARS represent the 12th completed session. The numbers on top of the bars indicate the maximum number of repetitions that Nick performed with optimal technique. On September 2nd, Nick established a baseline of 12 perfect repetitions with his left leg and 11 with his right leg. Fast forward to September 27th, Nick increased his output with his left leg by 58% and doubled his output with his right leg by 118%. The minimum requirement for advancement to a more difficult protocol is a 50% increase in total output from the BASELINE in a minimum of 12 sessions. As you can see here, Nick was able to accomplish this feat on the 5th session with his right leg, but it wasn't until the 11th session that Nick improved by 50% with his left leg.

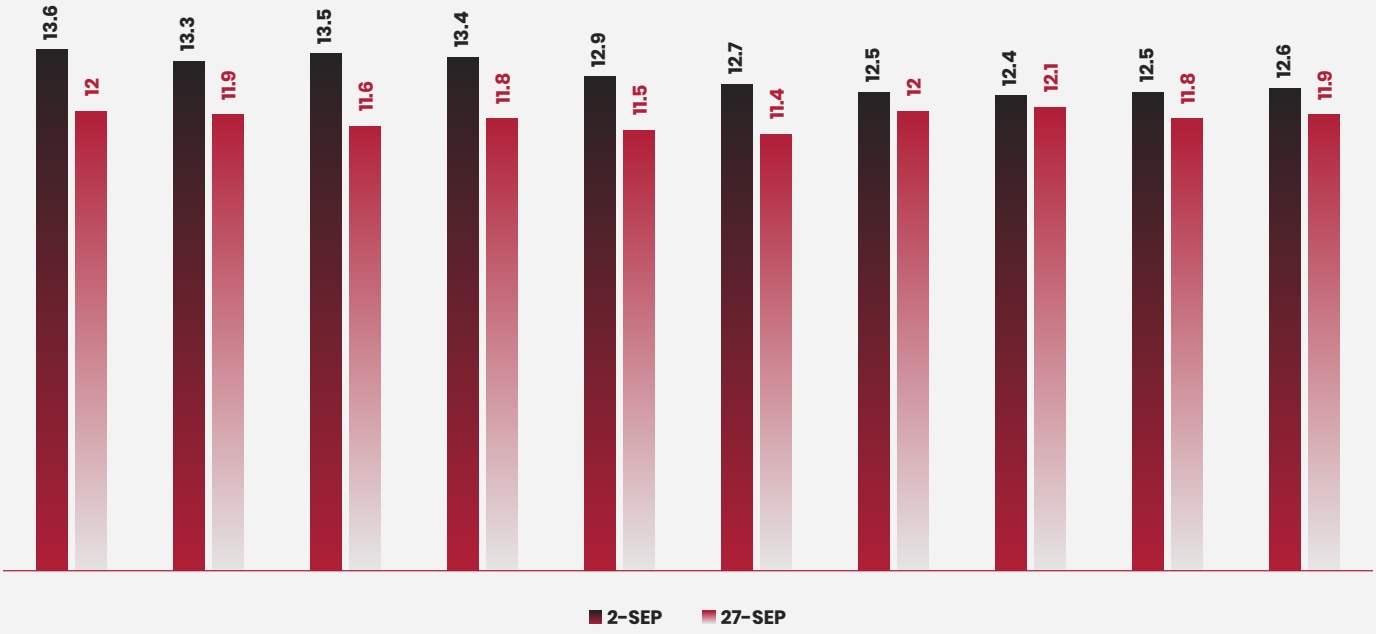
DRL750A



The alpha-numeric labels represent the cardiovascular/cardiorespiratory component of quickness, the ongoing development of energy systems (O2 / LA-Glycolytic / ATP-Pcr), and the intensity of work performed (time / speed / distance). DRL750A is a closed skill movement we have developed. The areas of emphasis are hip, knee, and ankle mobility. The load is the athlete's own body weight. Force production of this movement is low, and the velocity of this movement is high. The black bars represent the BASELINE for three non-consecutive quickness training components of a performance training session; the RED BARS represent the 12th completed session. The numbers on top of the bars indicate the minimum amount of time in which Nick performed the drill with optimal technique. An athlete must decrease the median time by a minimum of 20% from the BASELINE to advance to a more difficult protocol. The median is used instead of the average because the median eliminates outlier bias and therefore represents true adaptation to a prescribed stimulus. On September 2nd, Nick established a median of 15.95 seconds. On September 27th, Nick decreased his median time by 1 second, which is a decrease of 6% from his BASELINE.

This closed movement is broken into four phases. The four phases were initial movement (start of players movement until shoulders or hips begin to rotate), turn (the start of the rotation at the shoulder or hips until both have rotated beyond parallel), take-off (the point when the plant foot left the ground until the contralateral foot touched down), first foot-ground contact (the point when foot of the free leg touched the ground in the new direction through the next take-off of that same foot). In summary, technical and physical components are thought to be the main contributors to the success of change of direction (CODs) performance. It is reasonable to assume that a more effective technical performance increases the likelihood of more effective CODs performance, which is why our focus has always been on execution with optimal technique.

DRL1100A



The alpha-numeric labels represent the cardiovascular/cardiorespiratory component of change of direction (CODs), the ongoing development of energy systems (O2 / LA-Glycolytic / ATP-Pcr), and the intensity of work performed (time / speed / distance). DRL1100A is an open skill movement we have developed. The areas of emphasis are hip, knee, and ankle mobility. The load is the athlete's own body weight. Force production of this movement is low, and the velocity of this movement is extremely high. The black bars represent the BASELINE for three non-consecutive change of direction (CODs) training components of a performance training session; the RED BARS represent the 12th completed session. The numbers on top of the bars indicate the minimum amount of time in which Nick performed the drill with optimal technique. An athlete must decrease the median time by a minimum of 20% from the BASELINE to advance to a more difficult protocol. The median is used instead of the average because the median eliminates outlier bias and therefore represents true adaptation to a prescribed stimulus. On September 2nd, Nick established a median of 12.8 seconds. On September 27th, Nick decreased his median time by almost 1 second to 11.85, which is a decrease of 7% from his BASELINE.

The paradigm of using the words speed, agility, and quickness interchangeably loses all credibility to being knowledgeable about coaching, training, or developing athletes in any capacity. There is a huge distinction between the elastic and eccentric requirements for change of direction speed (CODs). The mechanical proficiency needed for CODs and development of strength in the weight room are two distinct bio-motor abilities. Improvements in strength do not automatically produce improvements in quickness and or change of direction speed (CODs).