

Mike Potenza mpotenza@sjsharks.com

SPECIAL THANKS TO.....

- Ray Wright and the 49ers
- Lon Record and Hammer Strength / Life Fitness
- San Jose Sharks Organization
- My Mentors and Coaches
- Kevin Neeld and Marcello Martinelli

Effective program design strategies used to retain performance qualities and allow for recovery during high competitive demand and stress.

Unlocking performance while minimizing fatigue during the season.

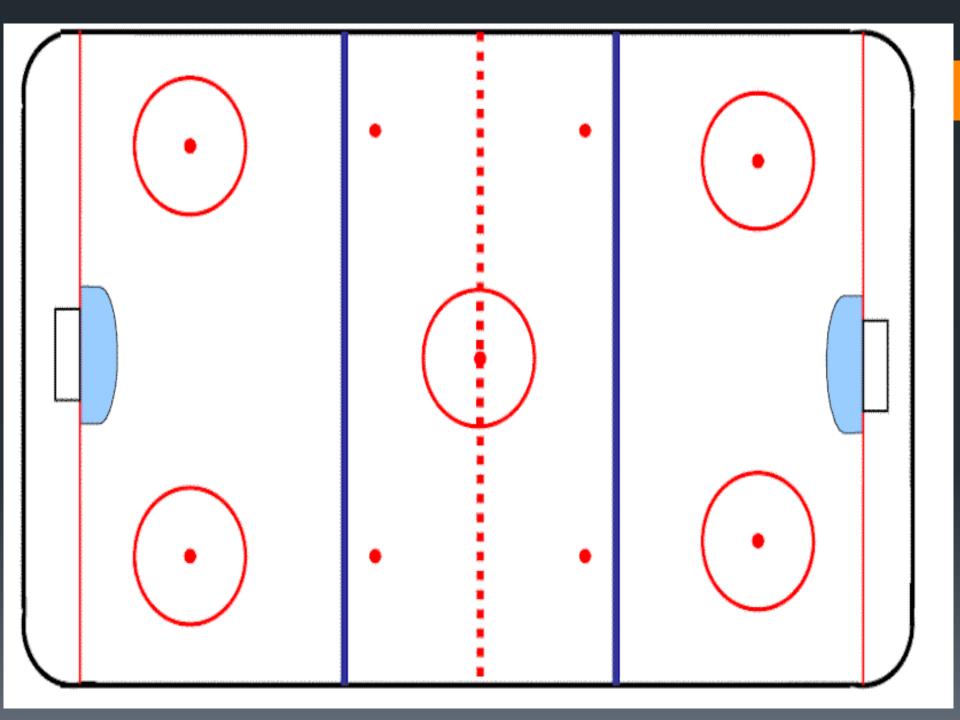
Today's Game Plan



- 1. Look at the process / journey that I've experienced along the way.
- 2. I want to give you a perspective of our game and the challenges we face in our training program.
- 3. 4 Main considerations within our performance program that enhance performance and minimize fatigue.
- Insights into performance mapping strategies during the year.
- 5. Our interventions and action items in our program.
- 6. Questions?????????

The search for an effective In-Season Model.

- College programming was not easier, the schedule was just outstanding!
- 2006-2007: Initial thought was a "Maintenance" approach
- Early on I never felt like we could strain or touch upon Intensity.
- Can I be more specific in my modeling?
- Istvan Balyi..... "This is not Sport, it is entertainment."
- MY MILLION DOLLAR QUESTION??????



CHALLENGES

SCHEDULE

- SEPT to APR (JUNE) 8 or 10 months
- 6-82-28
- Monthly Game AVG:13/14
- 4 days off per month per CBA
- Back 2 Backs: 3-4 per month

FACILITY

- 900sq ft
- Off-Site Training on the road
- No facilities at the game rink

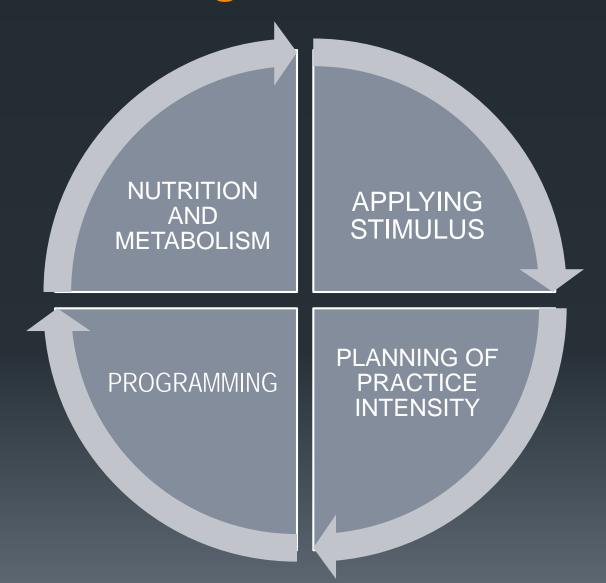
TRAINING AGES

- Rookies: <3 seasons
- Vets: 4-8 seasons
- Seasoned Vets: 9+ season in the NHL

The people and literature that helped me.

- Johnny Parker
- Al Miller
- Issurin's Block Concepts
- Brandon Marcello
- Erik Helland
- Cal Dietz
- Jim Snider
- Jim LaValle
- Glenn Harris
- Sean Skahan
- Sean Hayes
- Mark Uyeyama

Performance Program Considerations



Performance Program Considerations

FEB Games: 14

FEB Workouts: 6

February 2018

FEB Practices: 9

Monthly Planner

FEB Days Off: 4

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7 8 14 1 21 2	Jan 2018 1 T W T F S 2 3 4 5 6 9 10 11 12 13 5 16 17 18 19 20 2 23 24 25 26 27 9 30 31	Mar 2018 S M T W T 1 4 5 6 7 8 11 12 13 14 15 18 19 20 21 22 25 26 27 28 29	2 3 9 10 16 17 23 24	I DAY OFF	2 11:30 AM Pre-Game Skate (Nationwide Arena) 7:00 PM at Columbus 11:00 PM Fly to Carolina	3 12:00 PM Practice Team WO -STR-
1:00 PM at Carolina 5:00 PM Fly to Colorado	5 11:00 AM Practice (Denver University) Team WO -PWR-	11:30 AM Pre-Game Skate (Pepsi Center) 7:00 PM at Colorado 11:00 PM Fly to San Jose	7 DAY OFF	8 10:30 AM Pre-Game Skate 7:30 PM vs. Las Vegas	9 11:00 AM Practice 6:00 PM Father's Dinner	10 10:30 AM Pre-Game Skate 7:00 PM vs. Edmonton 11:00 PM Fly to Anaheim
5:00 PM at Anaheim 9:00 PM Fly to San Jose	12 11:00 AM Practice Team WO -PWR-	13 1030AM Pre-Game Skate 7:30 PM vs. Arizona	14 11:00 AM Practice TOBE+ -Jump eval-	15 10:30 AM Pre-Game Skate 7:30 PM vs. Vancouver	16 DAY OFF	17 11:00 AM Practice Team WO -STR eval-
5:00 PM vs. Dallas	19 10:00 AM Practice 12:00 PM Fly to St. Louis	20 11:30 AM Pre-Game Skate (Scottrade Center) 7:00 PM at St. Louis 11:00 PM Fig to Nashville	21 12:00 PM Practice	22 11:30 AM Pre-Game Skate (Bridgestone Arens) 7:00 PM at Nashville 11:00 PM Fly to Chicago	23 Pre-Game Skate (United Center) 7:30 PM at Chicago 11:00 PM Fly to Minnesota	24 DAY OFF
25 11:30 AM Pre-Game Skate (Xcel Energy Center) 7:00 PM at Minnesota	26 10:00 AM Fly to San Jose	27 10:30 AM Pre-Game Skate 7:30 PM vs. Edmonton POST GAME WO -PWR-	28 11:00 AM Practice			

Beginning to find the RIGHT answers!!! Issurin chart

TABLE 2.4: DURATION OF RESIDUAL TRAINING EFFECTS (RTE) FOR DIFFERENT MOTOR ABILITIES

MOTOR ABILITY	RTE (DAYS)	PHYSIOLOGICAL BACKGROUND
AEROBIC ENDURANCE	30±5	INCREASED NUMBER OF AEROBIC ENZYMES, MITOCHONDRIA, CAPILLARY DENSITY, HEMOGLOBIN CAPACITY, GLYCOGEN STORAGE, AND HIGHER RATE OF FAT METABOLISM
MAXIMAL STRENGTH	30±5	IMPROVEMENT OF NEURAL MECHANISM. MUSCLE HYPERTROPHY DUE MAINLY TO MUSCLE FIBER ENLARGEMENT.
ANAEROBIC GLYCOLYTIC ENDURANCE	18±4	INCREASED AMOUNT OF ANAEROBIC ENZYMES, BUFFERING CAPACITY, AND GLYCOGEN STORAGE. HIGHER POSSIBILITY OF LACTATE ACCUMULATION.
STRENGTH ENDURANCE	15±5	MUSCLE HYPERTROPHY, MAINLY IN SLOW- TWITCH FIBERS. IMPROVED AEROBIC/ANAEROBIC ENZYMES. BETTER LOCAL BLOOD CIRCULATION AND LACTATE TOLERANCE.
MAXIMAL SPEED	5±3	IMPROVED NEUROMUSCULAR INTERACTIONS AND MOTOR CONTROL. INCREASED PHOSPHOCREATINE STORAGE AND ANAEROBIC POWER.

Simplify programming into buckets



SPEED

- Locomotor Mechanics
- On-Ice Mechanics
- Poor Bar Velocities
- Poor Eccentric loading ability
- Velocity Zones for Primary exercises
- Concentric Focus
- Low Load Plyometric work
- Oscillating work



POWER

- Our best skaters have highest power outputs
- Contrast
 Primary
 exercises with
 plyometric
- Some on-ice resistance work through banded towing
- Weighted Squat jumping (Comp 2 method)
- Velocity Zones for primary exercises



STRENGTH

- "First safe guard against injury is to be strong."
- 3-6 representation
- Used mostly after games
- Normal Tempo
- Basis for our template on EVAL days

Performance Program Considerations APPLYING STIMULUS



Performance Program Considerations COACHES COMM.

- Shared Responsibility to "Fill The Bucket"
- If you want to be fast.....TRAIN FAST
- The right COMM is not "MY WAY OR THE HIGHWAY!"
- Give your coaches the best information that helps them with their decision making
- Give feedback on ideal practice length, intensity and scheduling

Performance Program Considerations NUTRITION AND METABOLISM





Interventions and action Items within our program.

- Warm-Up and Prep Work
- Team workouts
- Eval Training Day
- Reporting to Management and Coaching Staff
- Practice Monitoring
- Bloodwork markers and supplement prescriptions

Warm-Up and Prep Work



PRACTICE PREP & NOTES

ROLL

Foam Roll: Calves, Front/Outside/Inner Quad

Low Back, Lats
Lax Ball: Seated Long Leg, Sleeper Stretch

Acumobility Ball: Wall Pec, Wall Scap

MOBILITY

Seated Anterior Ankle Stretch: 30s

Diagonal Hip Rock w/ Reach Across: 5/side

Lateral Kneeling Adductor w/ Rotation: 5/side

Alt Lying Knee 2 Knee (2count hold): 5/side Lying Knee Hug Hamstring Raise w/ Toe In: 5/side

1/2 Kneel Pec w/ Stick: 5/side

Cross Body Lat w/ Reach Under: 5/side

ACTIVATION

1-Leg Hip Bridge: 2x(6x2s)/side

Tall Kneel Diagonal Band Pull-Apart: 2x8/side Lying Straight Leg Med Ball Squeeze: 2x10s

LOCOMOTION

Spiderman Lunge into Hammy

Backward Inverted Reach

Alt. Crossbehind Lunge

Butt Kickers, Carioca, Side Shuffle into Back Pedal

Crossover Skip

Backward Diagonal Shuffle

Back Pedal into Build-Up x2

SCHEDULE

Tuesday (3/6) 10:30 Practice TEAM WORKOUT

Wednesday (3/7) 10:30 Practice

Thursday (3/8) 7:30 vs. STL POST GAME WORKOUT

Friday (3/9) 11:00 Practice

Saturday (3/10) 1:00 vs. WASHINGTON

Sunday (3/11) 11:00 Practice TEAM WORKOUT

Monday (3/12) 7:30 vs. DETROIT

Tuesday (3/13) 11:00 Practice 1:00 Fly to EDM

Wednesday (3/14) 7:30 vs. EDMONTON

Team Workouts



TRAINING: POWER DEVELOPMENT

FOCUS ON MOVING WEIGHT AS FAST AS POSSIBLE



No restrictions

BLOCK 1

A1.) Front Squat. 3x5. GYM AWARE

A2.) Squat Jumps 3x5

A3.) DB Row (Slow ECC, Fast CON)

3x6ea. 60 // 65 // 70

A4.) PB Dead Bugs 3x8ea

BLOCK 2

B1.) Incline DB Bench 10-8-6-4

WTS: 50 // 60 // 65-70 // 70-80

B2.) Supine Ball Chest Pass 3x8 B3.) Two-Leg DB SLDL 3x5

WTS: 45 // 50 // 55

B4.) Tall Kneeling Cable Chop. 3x8ea

LOW BACK / PF PAIN

A1.) KB Deadlift: 3x5 w/ 36, 44, 48kg

A2.) KB Swing: 3x6 w/ 20, 24, 28kg

A3.) DB Row (Slow ECC, Fast CON)

3x6ea. 60 // 65 // 70

A4.) PB Dead Bugs 3x8ea

B Block Same As Above

No BI-LAT SQT GROUP (ANKLE)

BLOCK 1

A1.) DB Split Squat. 3x5ea

DB WTS: 40 // 45 // 50

A2.) Squat Jumps 3x5

A3.) DB Row (Slow ECC, Fast CON)

3x6ea. 60 // 65 // 70

A4.) PB Dead Bugs 3x8ea

BLOCK 2

B1.) Incline DB Bench 10-8-6-4

WTS: 50 // 60 // 65-70 // 70-80

B2.) Supine Ball Chest Pass 3x8
B3.) Two-Leg DB SLDL 3x5

WTS 45 // 50 // 55

B4.) Tall Kneeling Cable Chop. 3x8ea

No Ext Rot / Left HPFXR

A1.) KB Deadlift: 3x5 w/ 36, 44, 48kg

A2.) DB Row (Slow ECC, Fast CON)

3x6ea. 60 // 65 // 70

A3.) Short Side Plank: 3x15-20s/side

B1.) DB Floor Press: 3x8

B2.) Two-Leg DB SLDL: 3x5 w/ 45s, 50s, 55s

B3.) Tall Kneeling Cable Chop: 3x8ea

WEIGH-IN/QUESTIONNAIRE & HR MONITORS

Eval Training Day



TRAINING: STRENGTH DEVELOPMENT

Focus on moving weight as fast as possible



No RESTRICTIONS

- A1) Trap Bar x5, x5, x5 GYMAWARE ALL SETS WEIGHTS 185 -- 225 -- 225
- A2) Tall Kneeling Cable Lfit 3x8ea
- B1) Bench x5, x5, x3, x3 GYMAWARE ALL SETS Weights: SEE BOTTOM RIGHT BOX
- B2) Plate Hold Dead Bug 3x8ea

 Press plate away. 45lb plate

No BI-LAT SQUAT // No UB PRESS

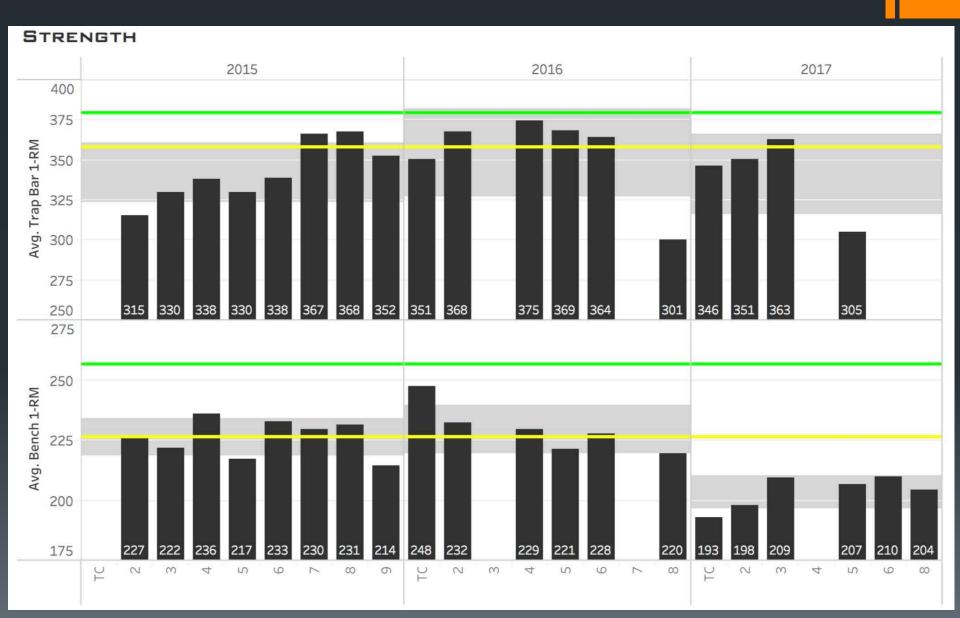
- A1) DB Step-Up: 3x5/side
 - WEIGHTS 35s-45s -- 45s-55s -- 55s-65s
- A2) Tall Kneeling Cable Lfit 3x8ea
- B1) Bench x5, x5 x3, x3 GYMAWARE ALL SETS
 - Weights: SEE BOTTOM RIGHT BOX
- B2) Plate Hold Dead Bug 3x8ea
 - **Press plate away. 45lb plate**

BENCH PRESS WEIGHTS

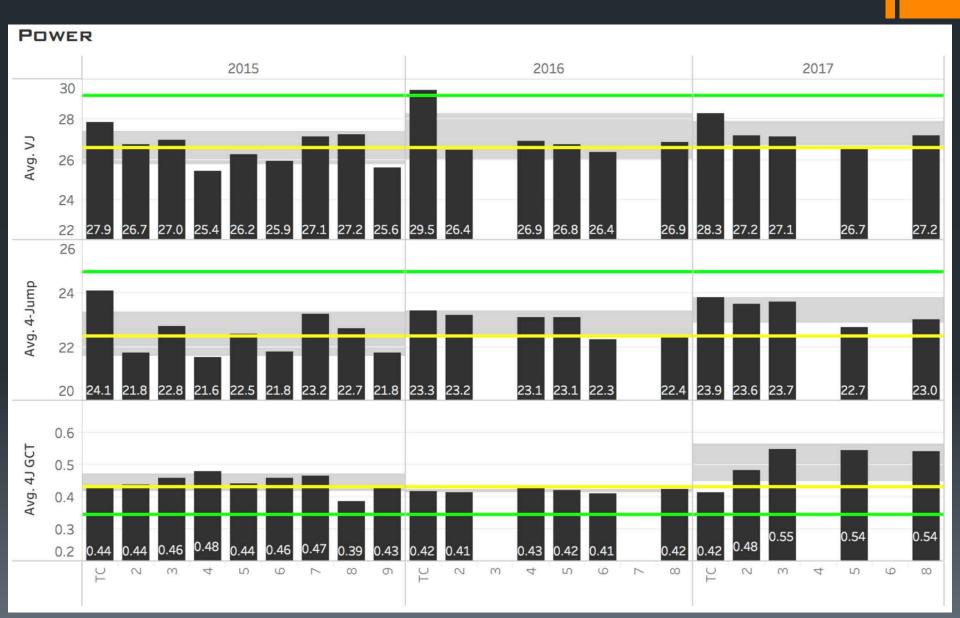
- 23, 28, 36, 44, 47, 72, 89: 135, 155, 185-195, 205-215 20, 30, 61: 135, 155, 175-185, 185-195 31, 50, 62: 135, 155, 165-175, 175-185
 - DB BENCH WEIGHTS
- 4, 88: 50s, 60s, 65s-70s, 70s-80s 8, 27, 74: 50s, 55s, 60s-65s, 65s-75s 68: 40s, 50s, 50s-60s, 60s-65s

Weigh-In/Questionnaire & HR Monitors

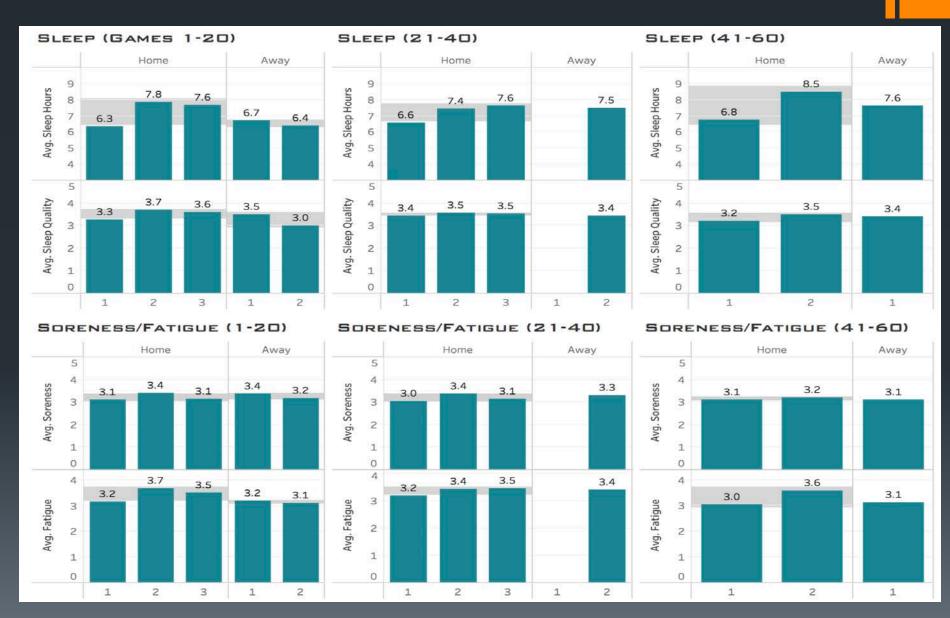
Performance Reporting Info



Performance Reporting Info



Performance Reporting Info



Practice Monitoring

SAN JOSE SHARKS PERFORMANCE REPORT

DAILY SUMMARY

	11/9/17				
Name	Prac Load	Pace	90- 100%		
Carpenter, Ryan	57	1.9	2.4		
Meier, Timo	41	1.3	0.9		
Boedker, Mikkel	39	1.2	0.0		
DeMelo, Dylan	39	1.3	0.0		
Martin, Paul	38	1.2	0.0		
Couture, Logan	34	1.3	0.2		
Goodrow, Barclay	34	1.0	0.0		
Heed, Tim	32	1.0	0.0		
Braun, Justin	31	1.0	0.0		
Dillon, Brenden	31	1.1	0.0		
Donskoi, Joonas	31	1.0	0.0		
Hertl, Tomas	29	0.9	0.0		
Ryan, Joakim	27	0.8	0.0		
Tierney, Chris	26	0.8	0.0		
Pavelski, Joe	21	0.8	0.0		
Ward, Joel	13	0.4	0.0		
Group Average	33	1.1	0.2		

LDAD: Total workload from practice

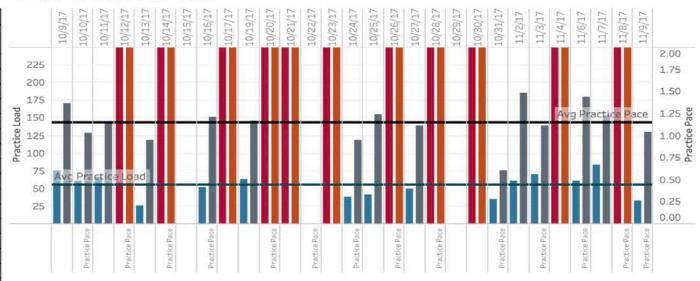
TIME 90%+: Total time spent with HR above 90%. This is our "high intensity training" measure. Above ~5:00 is high for our typical practices.

PACE: Total workload divided by length of practice. Longer practices typically have higher training loads, but may not be as stressful as shorter practices with high training loads. Intensity provides an indication of the average pace of the practice.

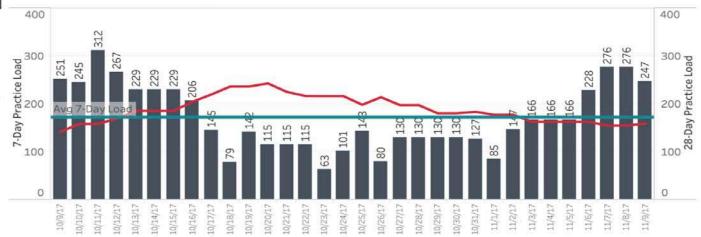
7-DAY LDAD (DARK GRAY BARB): Total workload over the previous week. Keeping this number stable across most weeks means we're getting consistent quality practice work in.

28-DAY LOAD (RED LINE): Average 1-week workload over the previous 4 weeks. This gives a measure of our typical practice loads so we can see if our most recent week was higher, lower, or around the same.

LOAD & PACE BY DAY



7-DAY VS. 28-DAY WORKLOADS



Practice Monitoring

SAN JOSE SHARKS PERFORMANCE REPORT

DAILY SUMMARY

	3/7/18				
Name	Prac Load	Pace	90- 100%		
Donskoi, Joonas	77	1.66	0.2		
Sorensen, Marcus	70	1.51	2.7		
Fehr, Eric	62	1.34	0.0		
Boedker, Mikkel	57	1.37	0.8		
Ward, Joel	56	1.21	0.0		
Labanc, Kevin	55	1.25	0.6		
DeMelo, Dylan	55	1.33	0.1		
Vlasic, Marc-Edouard	54	1.17	0.0		
Ryan, Joakim	51	1.10	0.1		
Martin, Paul	49	1.20	0.0		
Dillon, Brenden	47	1.01	0.8		
Braun, Justin	46	1.19	0.0		
Meier, Timo	44	0.95	0.3		
Goodrow, Barclay	42	0.92	0.0		
Tierney, Chris	40	0.98	0.0		
Heed, Tim	40	0.86	0.0		
Hertl, Tomas	39	1.05	0.5		
Pavelski, Joe	24	0.63	0.0		
Hansen, Jannik	23	0.59	0.0		
Group Average	49	1.12	0.3		

LDAD: Total workload from practice

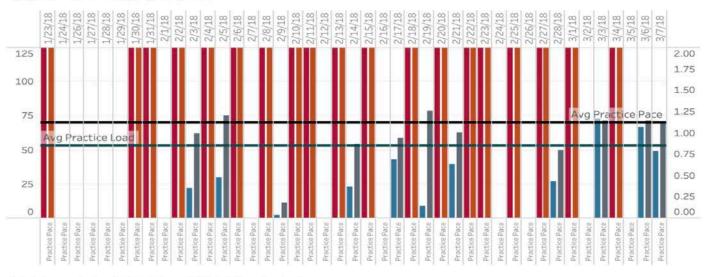
TIME 90%+: Total time spent with HR above 90%. This is our "high intensity training" measure. Above ~5:00 is high for our typical practices.

PAGE: Total workload divided by length of practice. Longer practices typically have higher training loads, but may not be as stressful as shorter practices with high training loads. Intensity provides an indication of the average pace of the practice.

7-DAY LDAD (DARK GRAY BARB): Total workload over the previous week. Keeping this number stable across most weeks means we're getting consistent quality practice work in.

28-DAY LOAD (RED LINE): Average 1-week workload over the previous 4 weeks. This gives a measure of our typical practice loads so we can see if our most recent week was higher, lower, or around the same.

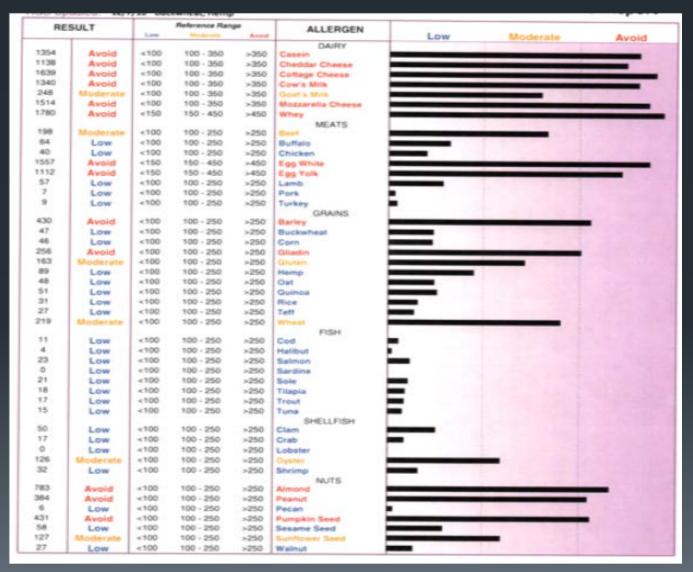
LOAD & PACE BY DAY



7-DAY VS. 28-DAY WORKLOADS



Bloodwork markers and supplement prescriptions



Bloodwork markers and supplement prescriptions

SAN JOSE SHARKS								
DAILY RECOMMENDED SUPPLEMENTS								
NAME	PROTEIN	1	2	ß	4	5	6	7
Boedker	Whey	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Citrus Solu-Q: 1x	Omega: 3x	
Braun	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	C-1000: 2-3x	Omega: 3x	E-400: 1x
Burns	Whey	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM	Citrus Solu-Q: 1x	
Couture	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Omega: 3x		
Dell	Whey	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Omega: 3x		
DeMelo	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM	Omega: 3x	
Dillon	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	C-1000: 2-3x	Mag: 3-4x @Bed	
Donskoi	Whey	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM	Omega: 3x	
Fehr		Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Omega: 3x		
Goodrow	Whey	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	E-400: 1x			
Hansen	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	C-1000: 2-3x	E-400: 1x	
Heed	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	C-1000: 2-3x	E-400: 1x	
Hertl	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	C-1000: 2-3x		
Jones	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM		
Kane		Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Omega: 3x		
Karlsson	Whey	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM	E-400: 1x	
Labanc	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	E-400: 1x	Osteoguard: 2x AM/2x PM	Omega: 3x	
Martin	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM	Omega: 3x	
Meier	Whey	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	E-400: 1x	Osteoguard: 2x AM/2x PM		
Pavelski	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM	C-1000: 2-3x	
Ryan	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM	E-400: 1x	
Sorensen	Whey	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Omega: 3x		
Thornton	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	E-400: 1x	Osteoguard: 2x AM/2x PM		
Tierney	Whey	Probiotic: 1x		Methylgard+: 1x		Osteoguard: 2x AM/2x PM	Citrus Solu-Q: 1x	
Vlasic	Whey	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM	C-1000: 2-3x	
Ward	Plant-Based	Probiotic: 1x	Glutamine: 1-2x	Methylgard+: 1x	Vit. D: 1x	Osteoguard: 2x AM/2x PM	E-400: 1x	
	Take all supplements in morning with food unless otherwise stated							
Protein Servings: Whey; Biosteel Plant: 1.5 scoops, Garden of Life Plant: 2 scoops								

