

## Training Plan Explanation

Parents and juniors,

I know that some of you may not realize that there is a method to our madness when it comes to training! It may seem random, but it isn't. Recently, I've been asked a few questions like:

"How do you decide what workouts the kids should do?"

"Why are the majority of longer rides in the spring when it's cold?"

"Why should my junior ride 50-milers year-round when the races are much shorter?"

"Why should my junior ride 50-milers year-round when the races are longer?"

"Why do you start the 3.2-mile time trials (field testing) in April and end in September?"

"Why do you have my fast and strong junior slow down and ride laps with younger or slower juniors?"

"Why are laps "hang or drop" only from mid-April until the first of October?"

"Why do you want my junior to ride more miles and rides this year than last year?"

Although this message may draw more questions, but for the sake of communication and education, I thought it best to share with the team our Annual Training Plan Overview. Hopefully, this is a start to answer your questions.

Our annual training plan uses the Training Periodization model that appears in the attached document. Periodization is the training system used by most successful athletes today. Periodization training is the concept of varied training throughout the year - beginning with general conditioning to specific conditioning during each season. In the late 1940's Soviet sports scientists discovered that athlete performances improved with varied training compared to a constant training approach. Dr. Tudor Bompa, Romanian sports scientist refined the varied training concept and published *Theory and Methodology of Training*, which in his later editions became *Periodization, Theory and Methodology of Training*. Who knew that I was going to give you a history lesson!

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Please share these charts with your juniors.

Our **Annual Training Plan** is organized according to this Training Periodization Chart.

Endurance Training Periodization Chart

		Duration in weeks	workouts							INTENSITY (low, high intensity workouts <sup>1</sup> )	VOLUME	
			endurance	strength	speed	muscular-endurance	speed-endurance	power	testing			
<b>MACROCYCLE</b>	Mesocycle period	Preparation	2	X	X	X					Low (4, 1 per week)	low
		Base 1	4	X	X	X					Low (4, 2 per week)	increase
		Base 2	4	X	X	X	X				moderate (4, 3 per week)	increase
		Base 3	4	X	X	X	X			X	moderate (5, 3 per week)	maximum
		Build 1	3-5	X	X		X	X	X	X	Increase moderate to high (5, 3 per week)	maintain
		Build 2	3-5	X	X		X	X	X	X	high (4, 3 per week)	slightly reduce
		Peak	1-2	X	X		X	X	X	X	high (4, 2 per week)	reduce
		Race <sup>2</sup>	1-6	X	X		X	X	X	X	high (3, 2 per week)	low
		Transition	1-6	X		X					Low (3, 1 per week)	low

Each Year of training is a Macrocycle. Each Period of training is a Mesocycle. Each week of training is a Microcycle

<sup>1</sup>The total number of workouts is a function of training years and classification (beginner to elite). The greater the training years and classification the greater number of weekly workouts; hence, the number of workouts per week may vary by  $\pm 2$ .

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<sup>2</sup>Race Periods may be followed by Build 1, Build 2, Peak, Race or a short Transition Period leading up to another Build 1 to Race Period sequence, or a long end of season Transition Period.

Sprint Training Periodization Chart

		Duration in weeks	workouts							INTENSITY (low, high intensity workouts)	VOLUME	
			endurance	strength	speed	muscular-endurance	speed-endurance	power	testing			
<b>MACROCYCLE</b>	Mesocycle period	Preparation	3-4	X	X	X					Low (3, 2 per week)	low
		Base 1	4-5	X	X	X					Low (4, 2 per week)	low
		Base 2	4-5	X	X	X					moderate (4, 3 per week)	increase
		Base 3	4	X	X	X	X			X	moderate (5, 3 per week)	maximum
		Build 1	3-5	X	X	X	X	X	X	X	Increase moderate to high (4, 4 per week)	slightly reduce
		Build 2	3-5	X	X	X	X	X	X	X	high (4, 4 per week)	maintain
		Peak	1-2	X	X	X	X	X	X	X	high (3, 3 per week)	reduce
		Race <sup>2</sup>	1-6	X	X	X	X	X	X	X	high (3, 2 per week)	low
		Transition	1-6			X					Low (3, 1 per week)	Very low

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## Training Period Definitions

Period	Duration	Training Description	General Rides/Workouts	Intensity	Volume
Preparation	Marks the start of the training year following a Transition Period at the end of the racing season. (3 - 4 weeks).	Cross-training ( <b>gym, running, cyclocross, etc.</b> ). Speed drills.	FB-50's – low intensity Cyclocross OP-21 – low intensity Indoor trainer – speed work Gary's Ride – low intensity	Low intensity (minimal time at high intensity such as speed drill workouts).	Low volume.
Base 1	Establish the basic fitness abilities of endurance, strength, & speed. (4 - 5 weeks).	Cross-training. Continue speed work. More long rides and increased daily mileage. Aerobic group rides.	FB-50's – low intensity L&G-20 Cyclocross OP-21 – low intensity Indoor trainer – speed work Gary's Ride – low intensity	Low intensity minimal time at high intensity such as speed drill workouts).	Increase volume.
Base 2	Establish the basic fitness abilities of endurance, muscular-endurance, strength, & speed. (4 – 5 weeks).	Reduce cross training. Sprints. Add muscular-endurance training - tempo workouts. Weekend Long rides followed by shorter workouts.	FB-50's – low intensity L&G-20 Cyclocross OP-21 – low intensity Indoor trainer – speed work Gary's Ride – low intensity	Increase intensity.	Increase volume.
Base 3	Establish the basic fitness abilities of endurance, muscular-endurance, strength, & speed. (4 - 5 weeks).	Reduce cross training. Sprints. Increase muscular-endurance training - add hill workouts. Consecutive days of long aerobic rides.  Add moderate paced climbing.	FB-50's – low intensity L&G-20 Hill Repeats OP-21 – low intensity Indoor trainer – speed work Gary's Ride – low intensity  Spring Century Helen Ride	Increase intensity.	Increase volume to highest point of the season. Longest workout should be <u>at least</u> as long as your longest race.
Build 1	<u>Follows Base or Race Period.</u> Re-establish endurance. Avoid overtraining. (3 - 5 weeks).	Speed-endurance training with 1 or 9 riders. Two or three high intensity days per week. Fast climbing. Hill sprints. Testing.	FB-50 – tempo intensity FB-50 – low intensity L&G-20 Hill Repeats OP-21 – tempo intensity Skills, speed work, 3.2ITT Gary's Ride – tempo intensity  Chattanooga Ride	Relatively high intensity. Long Intervals, fast group rides, hill workouts. Mix of easy and hard efforts on long group rides.	Maintain volume.
Build 2	Follows Build 1 Period. Work toward peak condition. Avoid overtraining. (3 - 5 weeks)	Longer Speed-endurance & muscular-endurance training with less recovery time. Two-workouts per day, up to 3x per week. Testing.	FB-50 – tempo intensity FB-50 – low intensity L&G-20 Hill Repeats OP-21 – high intensity Skills, speed work, 3.2ITT Gary's Ride – tempo intensity  Summer Century	Increase intensity. High intensity intervals: 1 - 4km. Long fast group rides.	Slightly reduce volume.
Peak	Consolidation of racing fitness. (1 - 2 weeks)	Includes "B" & "C" races. Testing.	FB-50 – tempo intensity FB-50 – low intensity L&G-20 Recovery Ride OP-21 – high intensity Skills, speed work, 3.2ITT Gary's Ride – tempo intensity	High intensity (mid-week & weekend) & recovery. Sprints.	Reduce volume - taper.
Race	Racing - "A" priority. (1 - 6 weeks) - <u>Build 1 or Transition Period may follow.</u>	Emphasis strength - work on specialty, i.e. TT, climbing, sprint, etc. Testing.	FB-50 – tempo intensity FB-50 or L&G-20 – low intensity Recovery Ride OP-21 – high intensity Skills, speed work, 3.2ITT Gary's Ride – tempo intensity  Power Test – end of season	High intensity & recovery.	Low volume.

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Transition	Rest & recovery following a Race Period or end-of-season. (1 - 6 weeks).	Little regimentation or structure.	FB-50 – low intensity L&G-20 OP-21 – low intensity Skill Gary's Ride – low intensity	Low intensity.	Lowest volume.
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Note: Also, Wednesday's LT-20 and Friday's LT-18 are added to the schedule of some juniors for additional volume at low intensity throughout the year. Juniors are not "static" athletes, that is, they are growing, so there are modifications that need to be considered compared to adult Periodization Training schedules.

**Some other training resources make a reference to the "Competitive Period". The Competitive Period consists of the Build, Peak, and Race Periods.**

The attached version is our second revision of the chart from 2005. I sent the original version to a few parents and juniors, but I noticed a couple of changes in this later version.

We haven't updated the chart and overview since the beginning of the program because, in general, it reflects exactly how we arrange the training year for our juniors. If you are familiar with Coach Joe Friel's approach, we closely follow his model for cyclists. You can refer to The Cyclist's Training Bible for Joe Friel's periodization model.

When you are looking at our overview, you should note that all juniors, regardless of their program (primary, intermediate, advanced, elite), are trained according to the Endurance Chart. The Sprint Chart is for track cyclists (in 2006, we took six juniors to USA Cycling Junior Track Nationals).

For the newcomers to our group, parents and juniors, you should know that cycling is a year-round endurance sport. To be a successful cyclist, an athlete can not just train for a few months and then take time off from it. To be a good cyclist, you must be fit all of the time - of course, not at peak, but fit. And for the most part, each year of fitness and training depends on the previous year's level - training years has a huge bearing on success in cycling. Try to keep these points in mind while reviewing the overview.

In general, our annual planning model has not changed very much in the past six seasons; however, I am making some minor changes to the chart based on what we've learned over the past six seasons. Also, I am adding some more information and explanations regarding workout frequency to our updated 2010 Annual Training Plan Overview version..

Our specific 2011 Frazier Cycling Juniors annual training plan is forthcoming (once the race schedule is set). It will show events and races within the 2011 macro cycle. To reiterate, the annual training plan applies to all program levels of Frazier Cycling Juniors (Primary to Elite). Of course the Primary Program contains a subset of workouts and event/races compared to the higher program levels. Additionally

Our annual training plan is an element of our "playbook". As such, it should not be shared with other teams or groups.

"Remember that hard work on Thursday in for a purpose - to sharpen up for Sunday's race."

***Bicycle Road Racing - Complete Program for Training and Competition***

Vitesse Press, 1985

Eddie Borysewicz, 1980-1984 US Olympic Cycling Coach  
with Ed Pavelka

"From October 15 to the end of November do only what you want to do... Enjoy some parties, but stay away from beer, wine, and other alcohol."

***Bicycle Road Racing - Complete Program for Training and Competition***

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Vitesse Press, 1985

Eddie Borysewicz, 1980-1984 US Olympic Cycling Coach, with Ed Pavelka

### **Cold Weather Training - non-competitive season**

Eddie Borysewicz, 1980-1984 US Olympic Cycling Coach

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### Final Notes

A few final things for cold weather cycling and running: First, expect to be cold over the first 5 minutes of your ride or your run. Your body needs a little bit of time to get the heart rate up and start to generate heat. (Five minutes of walking or running on a treadmill before going outside can partially mitigate this). If you are wearing the correct gear, it will work with you to keep the desired amount of heat in.

Second, you must understand that your speed on the bike will start to drop at around 40 degrees, as your body now needs to spend more of its energy keeping you warm, and your running speeds will start to drop below 30 degrees for the same reason.

Third, as the temperature drops, you may notice that you are not thirsty and may greatly reduce the amount you drink. It is important to keep hydration up, because you lose a fair amount of water through breathing, since the air you breathe out is much warmer and moister than the cold winter air you are breathing in.

Fourth, a simple trick that works if you get caught out on the bike not wearing enough clothing is to get off and jog next to the bike for 2–3 minutes. The reduction in wind chill and increased heart rate can help tremendously in getting the body warm and keeping it warm.

Finally, enjoy your cold weather cycling and running. It can be fun and refreshing—and living in an area like New England, you are guaranteed to have at least

4 to 5 months of it every year.

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