

## Bruny Detailed Training

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by Michel Portmann (PHD)

Professor at the department of Kinanthropology at the Université du Québec à Montréal and Bruny's personal coach.

### General Outline of Bruny Surin's Training

A sprinters training is based on the analysis of the required elements in a sprint race: running at maximum speed, short in duration, therefore of anaerobic alactic and lactic types at the same time.

The biomotor components (physiological, biomechanical and neuromotor) which are implicated in the sprinter's effort are at the basis of what makes-up a highly specific sprinter's training program such as Bruny's. The planning of the annual training cycle provides the opportunity to better manage the adaptation process for the organism's workload and to arrive on "D" day at the height of the intended physical form.

While the speed, running and start technique and the endurance-speed training plays a central role, weigh training (weightlifting and plyometrics) are also greatly important. Bruny's training includes all these facets.

However it wasn't long ago that sprinters were advised not to weigh train. Today weigh training is indispensable. It is an important element in Bruny's as well as other sprinters' training program which explains the muscular and athletic frames of the 100 and 200 metre sprinters. However their training differs from the bodybuilders. It is different not only in the importance of the amount lifted but also in the methods and exercises utilized. The sprinters exercises are more explosive and more dynamic in order to duplicate the specific reality of the strength and speed required in competition.

Bruny's training starts in October and ends in mid-September the following year. The annual planning of the training is divided in two parts or more precisely two "macrocycles" of six months each (winter season and summer season). The culminating points for each season is the major competition. For the winter season, example for 1999, it is the World Indoor Championships, March 5-7, 1999 and the major competition of the summer season, example for 1999, is the World Outdoor Championships August 20-29. Bruny must be in peak condition at both those target meets.

With the major competition as the ultimate objective, the other meets are chosen based on importance. That importance is decided in regards to the stage at which the progression of the physical and mental fitness stands in conjunction with the major competition.

It is clear that peak form cannot be achieved and maintained for every competition. To arrive at a peak performance for the targeted meet (the major competition), the training is gradual, regular, with systematic periods of recovery and re-energisation every four to five weeks (reduction of volume and intensity of the training work loads) to allow the organism to adapt, re-energise and create an accumulation of training (accumulative overcompensation). To achieve this, each macrocycle is divided into subcycles of four or five weeks each, in which training goals are established, Field or/and lab tests provide the opportunity to monitor the evolution of the training in regards to what was planned and to adjust if the results are not what was desired.

One macrocycle for Bruny usually lasts six months and is divided in periods based on the time remaining before the major competition which is where the peak performance is suppose to be achieved. Therefore the planning for the indoor and outdoor season is done by a defined order.

A. General period of preparation (four weeks) dedicated to reconditioning.

During this period each training session lasts about 3.5-4 hours a day, six days a week. Four weeks of reconditioning may seem short but one must remember that Bruny has 10 years of training under his belt and is already in incredible physical shape. Therefore there shouldn't be too much spent on this process. It is better for Bruny to move on to the next step which is more specialized (specific period). In reality those three weeks dedicated to the reconditioning and the fatigue caused by the training reach their climax at the end of the third week of the subcycle. The fourth week is an alleviation period when the training is reduced in order to recuperate and force the organism to regenerate and adapt (accumulative effects of the training). This cycle of three weeks of intense training followed by an alleviation week reoccurs all year long. During the period of reconditioning each week is comprised of: three sessions of heavy weight training, two of which are dedicated to achieving maximal force (lifts varying between 50 and 150 kilograms) and one for explosive strength (lighter lifts).

Two sessions are dedicated to anaerobic lactic endurance work (series of repetitions for 150 to 300 metre runs with short rest periods).

One anaerobic lactic training session on a tread mill at maximum speed (more than 30 kilometres an hour)

B Period of specific preparations part I and II (pre-competition).

This lasts eight weeks and comprises exercises more specific to sprinting.

The first four weeks of the specific Preparation I are the toughest of the semiannual macrocycle training period. The efforts are very intensive and the amount of exercises are very high. Each week the training is comprised of :

two weight training sessions dedicated to explosive strength (lifts vary between 80 and 100 kilograms)

one weight training session for maximal strength (lifts vary between 60 and 150 kilograms)  
two speed endurance training sessions on a treadmill at high speed, one training session of plyometrics ( stairs, hurdles with feet bound; hurdles on one leg etc..) combined with technique (starts, speed etc.)

In the final four weeks, the Preparation II (pre-competitions), the training orientation changes. It becomes very specific to the sprint. During this key period for upcoming meets, the lifts in weigh training are lighter, more explosive and the length of the sessions are reduced ranging between 2.5-3 hours. The intensity of the exercises is still high, but the amount is reduced.

There are still six training sessions a week which are:

2 weight training sessions (medium and light lifts)

1 endurance session on a treadmill at high speed (30 kilometres an hour and more)

2 technical sessions (pure speed, starts, treading, racing in tow, braking, etc...)

1 plyometrics session combined with speed

C. The competition period.

Regarding the major competition and others which are less important. This period last two and half months in the winter and three and a half months in the summer. In general there are four or five training sessions a week which vary between two and three hours apiece.

They are adjusted in regards to the upcoming competition. During the competition period the training workload is reduced. It is based on the competition with more frequent recuperation periods. The workload is reduced and sometimes based day-to-day depending on how tired Bruny feels and the proximity of the upcoming meet. Usually in one week of training there is

1 plyometrics session

1 weigh training session

2 to 4 technical sessions (polishing the starting technique, speed work over 60-100 metres, etc..)

Here are a few examples of Bruny's training sessions during a specific preparation period :

## WEIGHT TRAINING

1. Regular warm-up

2. Abdominals  
(regular warm-up)

3. Bench press  
1 x 7 + 80 kg  
(warm-up)  
1 x 2 + 110 kg  
1 x 1 + 120 kg  
1 x 1 + 130 kg ... +

4. Shoulder press  
1 x 5 + 60 kg (warm-up)  
1 x 2 + 100 kg  
1 x 1 + 120 kg  
1 x 1 + 130 kg ... +

5. Shoulder pulls  
2 x 15 + 50 kg

6. Lean forward/pull  
2 x 15 + 50 kg

7. 1/2 squat with stoppage at 90 degrees at signal explode!!!  
1 x 10 + 80 kg  
1 x 7 + 100 kg  
1 x 5 + 120 kg  
1 x 10 + 80 kg  
+15 hops between each series

8. Trunk rotation  
2 x 10 RM each side

9. Knee lifts  
2 x 15 RM each leg

10. Arm movements  
2 x 20 + 5 kg/hand  
(running motion)

## SPEED TECHNIQUES

1. Regular warm-up Medicine ball, various abdominals, etc... plus, Regular training  
2X30-40 m  
-Knee lifts  
-Heel lifts  
-short skipping  
-long skipping  
-Tense legs  
-bouncing stride

2. Technique (standing start)  
4X60m at 90% max speed  
R=120s between each Relaxation,

Gradually increase frequency of strides,  
Foot reaction,  
Breathing

3. Standing start held and/or pulled (20-25m)  
4X20-25m

4. Technical starts  
6 x 10-20 m

5. Starts with blocks  
(max speed)  
(complete recuperation)  
2 x 30 m  
2 x 40 m  
2 x 50 m  
1 x 60 m

6. Recuperation  
Slow jog  
400m+  
stretching

#### ANAEROBIC LACTIC ENDURANCE

1. treadmill: anaerobic lactic UQAM Lab  
Max speed=30 km/h+Slope=1 degree  
5 x 10 sec. R = 20 sec  
5 x 20 sec R = 30 sec  
5 x 30 sec R = 3 min  
(FC recording during effort and recuperation)

At the end of interval sessions FC recuperation recording every 15 seconds during 8 min rest.  
Recuperation curb

2. Active recuperation  
Slow jog 10 min.

#### PLIOMETRICS

1. Regular warm-up Medicine ball, various abdominals etc... plus regular training 2X30-40m  
-Knee lifts  
-Heel lifts  
-Short skipping  
-Long skipping  
-Tense legs  
-Bouncing stride

2. Hurdles  pliometrics  
-Bound feet: 8X6 hurdles: h=normal  
-Bound feet, tense legs, footwork only:  
6X6 hurdles: h=minimum  
-One leg (each): 3X4 hurdles: h=average

3. Recuperation

Slow jog 400m+stretching.