



# ***THE HARMONIZER***

**OFFICIAL NEWSLETTER OF THE  
SHINTANI WADO KAI KARATE FEDERATION**



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## **Shintani Wado Kai Karate Canadian National Team**

Sensei Neil Prime, Godan  
SWKKF National Team Manager

The present Canadian National Team will retire in June 2004. This means that we need to select the next team through the process of a team selection tournament. The Federation has tried various ways to run this tournament. The Senate has finalized a National Team Tournament System that will be implemented for the selection of the 2004-2006 National Team members. To further the growth of the Shintani Wado Kai Karate Federation, we must consider a Tournament System that would ensure that the best-qualified competitors are brought together to vie for a spot on the National Team.

## **This tournament will be held in Fort Erie Ontario on Friday May 14th.**

An eligible competitor:

- 1) Must be a Canadian Registered Black Belt with the Shintani Wado Kai Karate Federation.
- 2) Has competed in a Canadian Invitational Tournament sanctioned by the SWKKF, and placed 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> in Kumite or 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> in Kata, in their category. The qualification period starts with the first tournament after the May 2000 Black Belt Tournament.
- 3) May have been graded since their qualification tournament, they are still eligible but must compete in their new category at the National Tournament.
- 4) Will be notified by mail. They must complete the entry form and return it with the applicable entry fee before the cut off date, if they wish to compete in the National Team Tournament.

The National Team categories referred to in the above sections are:

- a) Male Shodan
- b) Male Nidan
- c) Male Sandan
- d) Male Yodan
- e) Male Godan & Up
- f) Female Shodan/Nidan
- g) Female Sandan & Up

Alternates for each category will be picked upon placement in the tournament. Alternates will also be selected overall by weight so that we may field a team in such tournaments that conduct their rules in this manner. The SWKKF Tournament Committee has and will request records from all tournament organizers for the Black Belt competitors for the period stated above. **If you are responsible for running a SWKKF sanctioned event**, please make sure that your tournament results are submitted to Sensei Neil Prime at [getyourkicks@wadokaikarate.com](mailto:getyourkicks@wadokaikarate.com) as soon as possible.

**If you are a competitor and feel that you should of qualified** but you have not been contacted in any way by February 27th, please contact Sensei Neil Prime to verify the results of the tournament (s) you feel that you have qualified in. As a result of the National Competition, the successful competitors will be members of the National Team for a period of two years.

Persons competing for the National Team must be willing, and able to participate as much as possible in all team training and designated tournaments. If a member of the team is unable to meet the requirements of the Team, they **will** be replaced by the runner-up in the competition. All rules that govern SWKKF sanctioned tournaments shall apply with amendments as follows:

### 1. KATA RULES

The competitors must perform the kata for their rank as listed below, **there will be no substitutes.**

- |                        |                 |                               |
|------------------------|-----------------|-------------------------------|
| a) Male Shodan         | 1) Pinan Shodan | 2) Kushanku                   |
| b) Male Nidan          | 1) Pinan Nidan  | 2) Seishan or Nahanchin       |
| c) Male Sandan         | 1) Pinan Sandan | 2) Chinto                     |
| d) Male Yodan          | 1) Pinan Yodan  | 2) Chinto or Wanshu           |
| e) Male Godan & Up     | 1) Pinan Godan  | 2) Wanshu                     |
| f) Female Shodan/Nidan | 1) Pinan Nidan  | 2) Kushanku/Seishan/Nahanchin |
| g) Female Sandan & Up  | 1) Pinan Yodan  | 2) Chinto/Wanshu              |

2. Competitors will compete within in their category unless they are complying with section (8). Each **competitor must do two kata as listed above.**

If there are ties, the high and low scores will be included to determine the winner. If there are still ties, the Tournament Arbitrator will name a Pinan Kata to be performed. A show of hands by the Judges will decide the winner.

### 3. KUMITE RULES

At the National Team Competition, **there will be a double elimination system** between the members of each category. Each round will be for two (2) minutes with an accumulation of points per competitor to determine the winner of that round. If there is a tie, the match will resume in overtime until the first point is scored, thus determining the winner of that particular match.

## POINT SYSTEM

<u>1<sup>ST</sup> PLACE FINISH</u>	<u>3 POINTS</u>
<u>2<sup>ND</sup> PLACE FINISH</u>	<u>2 POINTS</u>
<u>3<sup>RD</sup> PLACE FINISH</u>	<u>1 POINTS</u>

The sum of the Point System for both kata and Kumite will determine the winners. If there is a tie in the final points, the competitor with the most points scored in the Kumite portion of the competition will be the winner. If they are still tied, the competitors will compete in a single Kumite match as per SWKKF rules.

## 8. COMPETITOR GRADINGS

A competitor must be aware of the following:

If a Team Member's grading date for advancement to their next Dan Rank comes due during their 2-year term on the Team, this person will be able to try out for the Team Position (Rank) above their present rank on the Shintani Competition Team. The Competitor must receive prior written approval by the instructor before entering into a position higher than their present rank.

For Example:

Joe/Jane is a Shodan, due to be graded in September. Jo/Jane can try out for the one- (1) team position at the Nidan level. If Joe/Jane is successful in making the team, he/she is now allowed to try for his/her next rank when his/her time comes up. Joe/Jane realizes that regardless if he/she makes the grading or not, he/she will be competing in the Nidan Rank Position on the Shintani National Team.



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## **BALANCE / TRAINING**

Sensei Brad Lundquist, Yodan

One of the aspects that may be overlooked in training in the martial arts is proper balance. There are times when one may be not in the proper plane, but adapt by adjusting the body position. For example, the stance may be wider than normal to compensate for the upper body being tilted, or the body leaning more than really required to do a kicking technique, etc. **So.... what is balance?**

Balance is the ability to maintain proper positioning and stability, both in movement, and at rest. In motion (dynamic) is what we are most concerned with. Dynamic balance represents a body moving at straight, and angular directions. Since we are almost always in motion during training, it is of the utmost importance that we have proper balance.

***In order to maintain balance, there are various tools that we use to keep us in the proper form.*** One of these tools is vision. Without realizing it, you are looking at lines on the wall of the dojo, and using these as reference to being straight up and down. I'm sure everyone has had told their students to stand on their toes, and keep their balance. Some can handle this better than others, depending on how well their system balance is. Now, if you tell them to close their eyes, most of the students will start to sway, one way or the other, and in most cases, lose their balance. What has changed?

Only the input source (vision) transmitting the level lines of the dojo walls has been shut down with the closing of the eyes.

In the inner ear, there are 2 types of receptors that respond to movement, and give feedback as to adjust the body. If you have ever seen a boxer hit by a punch to the jaw, knocked down, and rolling around the ring trying to regain his balance, his equilibrium has been upset, jarred by the blow. It almost seems there is a hurricane wind blowing through the ring, and making it difficult for them to get up. Basically, the fluid in the inner ears has been set out of balance, at least temporarily.

Last, but not least, are sensors in the bottom of your feet, constantly relaying feedback to the brain, as to where the feet are. The brain then decides what action to take, to keep the body in balance. In most cases, the floors of the dojos are very smooth and level, so this may not be much of an issue. However, if you have ever worked on a softer surface (such as tumbling mats), your body is always making corrections to keep you in balance.

Some martial arts, such as Judo, make great use of balance, previous to any throw. In order to initiate a proper throw, the opponent must first be unbalanced (kuzushi), in order to make the throw more effective. This allows an individual to throw a much heavier opponent, by taking advantage of disrupting their

balance. In karate, some examples are sweeping the foot, which is not planted solidly on the ground, moving into the opponent and knocking them off balance, as well as many other methods. The split second that the person is trying to regain their balance, is an opportune time to attack and score.

### **Centre of gravity**

For anything to be balanced, it has to have a centre, or balance point. Standing a box on one end is quite easy as it has a large base. Taking a chair, tipping it back, and balancing the chair on 2 legs is just little bit harder. Finding the balance point is very difficult, as you have a very small base (the 2 legs), and the balance point is very hard to find. Should you have the perseverance to take the time, quite often the chair will stay in place, at least for a few seconds. The human body in motion, is always changing, twisting, shifting directions, moving up and down, shifting to the sides, etc. What does the centre of gravity have to do with balance, and where is the centre of gravity???

Technically, if you run a line through the centre of the human body, vertically, and then again, horizontally through the midpoint, the centre of gravity is where these lines would intersect. This computes to the area somewhere down below the navel.....and sometimes called the " hara ". So... Basically, if the body was put on some sort of support, horizontally, and placed on the centre of gravity, you should be able to be balanced on the support,

and stay in place.....providing nothing moved. However, since the body is always moving, your centre of gravity always changes. There is a difference between standing upright, and comparing that to doing a side kick, having the leg extended up, and out to the side. Interestingly enough, the lower your centre of gravity is, in relation to your base, the more stable you become. Try pushing someone backwards in a low zenkutsu - dachi, as compared to standing upright. The base is wider, and the centre of gravity is lower, thus stabilizing the stance.

### **Improving balance**

How to train to improve your balance? Probably first and foremost, is the positioning of the head. If your head is even slightly in one direction, chances are you will be leaning in that direction, and more susceptible to be unbalanced.

Keep your head up, & eyes looking forward. Chances are if your eyes are looking down somewhat, your head will be tilted forward as well. This also compounds problems, as the back may round, the shoulders tilt, etc.

Keep the knees bent, when working on your balance. Your knees move very slightly in each direction, to assist keeping you in proper form. When doing a kata, in which you are standing on one leg, (Tsuru - ashi - dachi / Crane stance) your knee moves in various directions, compensating for the upper body movement.

There are various exercises that can be done as one, or as a compound exercise during the class warm up, to assist in working balance,

1- Standing on one leg, and touching the toes with the opposite hand. Initially, most students will bend the leg slightly, to make it easier. However, when they progress, ensure they lock the base leg, in order to stretch the hamstrings, which is the intent of the exercise as well.

2 - Have them rise up on the balls of the feet, and look straight ahead. You can also have them raise the arms to the front, or side. Advanced students may close their eyes, and work on keeping balance without outside input.

3 - Doing the kicks in slow form. An excellent way to work both the muscles involved in executing the kick, and balance as well.

## **15<sup>th</sup> Annual Manitoba Wado Kai Tournament**

**SATURDAY, FEBRUARY 28, 2004  
VIRDEN COLLEGIATE INSTITUTE  
VIRDEN MANITOBA**

**Registration: 7:00-9:00 PM Friday Feb. 27  
9:00-12:00 AM Sat. Feb. 28**

**Black Belt Meeting: 9:00 AM**

**Black Belt Competition: 10:00 AM**

**Kyu Belt Competition: 1:00 PM**

**Clinic: Friday 7:00-10:00 PM**

**Clinic & Tourney: \$30 Family: \$60**

**Tournament Only: \$20 Family: \$40**

**Clinic Only: \$10 Family: \$20**

### **SPECIAL GUESTS**

**Sensei Denis Labbe – Hachidan  
Welland Ontario**

**Sensei Norm Volk – Godan  
St. Albert Alberta**

Contact: Bruce Dunning – [bdunning@gov.mb.ca](mailto:bdunning@gov.mb.ca) – (204) 748-3547

## **CORE STABILITY WORKOUT CLASS**

Alyssa Lalonde

Seba Beach Wado Kai Karate, Alberta

I first heard about Core Stability workouts from my sensei Doug McDowell. I was so intrigued that I was dying to find out what it was like to take part in one of those classes. To be quite frank, I actually thought it was a flexibility class. But to my surprise I went there thinking that I was going to ace the class the class, but that sure changed in a hurry. When I found out that the class was not about flexibility I knew I was in for a rude shock. Thanks to my sensei I had the pleasure to participate in a core stability workout.

It took place on November 9<sup>th</sup> at the Tri-Leisure Center in Spruce Grove. The Core Stability class consisted of various exercises that stretch and strengthen the muscles throughout the core of your body. Which are the rectus abdominis (six pack), external oblique, internal oblique and the transversus abdominis (TVA). One of the many goals that are trying to be reached when doing core stability workouts are to maintain a neutral spine by using our deep abdominal muscles along with our deep back muscles. Core stability workouts can also help to stabilize the spine so you can participate in most economical movements.

When I first arrived at the Tri-Leisure Center I was almost certain that it was going to be a walk in the park, but as soon as I spotted all the brown and black belts scattered over the wood floor I had a feeling it would be much different from what I

first interpreted. It was very intimidating from a white belts point of view. Thankfully my sensei Doug McDowell spotted me and made his way over to my side. He looked at me and told me that I was going to be paired up with a young brown belt by the name of Lindsay. When I found Lindsay we said hello and where then called over for a brief report from all the sensei's clubs in and out of the area. After hearing all the sensei's input we were told to line up in eight or more rows.

The following is a brief summary of the core stability exercises that we practiced. First of all we started off with the four-point transverses abdominus workout. You have to go on all fours, while having your hands and knees shoulder width apart. Once you have done that you slowly exhale. When you are finished exhaling you then draw in your belly button. (That activates your TVA) once your belly button is drawn try and hold it for a count of 5 seconds, before you're completely relaxed.

Then we practiced leg slides. When you do leg slides you have to lay on your back with your knees bent, when you do this you activate the TVA. Once relaxed you slowly extend one leg about 1 inch above the floor until your leg is fully extended. When you do this, your lower back will arch. When that happens you will then slowly draw that leg in and then you repeat that exercise with the opposite leg.

After leg slides we then moved onto reverse crunches. When you practice reverse crunches you lie on your back having your knees bent. You then draw your knees towards your chest, and then slowly lower your knees back down to the floor. When you do this you have to make sure that you maintain the same angle throughout the whole lifting and retracting motions. If you have trouble focusing on the exercise you may place your hands on each side of your belly button.

After reverse crunches we then moved onto bridging. When you want to perform bridging, you have to lie on your back with having your knees bent. Once you've done this, you will slowly lift up your pelvis, and continue up your vertebrae until only your shoulders are left on the floor. Once you have completed that movement you will then do the same again only to end up with the pelvis being lowered until it reaches the floor.

After the bridging we then moved onto the horse stance vertical workout. When you do the horse stance vertical workout you have to kneel on your knees and put your hands on the floor having you legs and hands shoulder width apart. You slowly exhale, when you are done exhaling you then draw in your belly button activating the TVA. Once you are comfortable lift one hand and the opposite leg 1 inch off the floor. Hold stance for a couple of seconds and then lower hand and leg. Then repeat with the opposite hand and leg.

After the horse stance vertical workout we moved onto the horse stance horizontal workout. When you do this workout you go on all fours, having again your hands and legs shoulder width apart. You then slowly exhale, and when full exhalation is reached you then draw your belly button in, which again activates your TVA. Once the TVA is activated you slowly extend one arm and opposite leg directly away from your body. Hold for a couple of seconds then retract your arm and leg and repeat with opposite arm and leg.

Once we have done the introductory exercises we moved onto the intermediate advanced exercises. We then started with the plank. When you do the plank you go on all fours, with hands and knees shoulder width apart. Then slowly exhale, when full exhalation has been reached you then draw in your belly button, which activates the TVA. Then you drop down onto your elbows and toes while making your back straight, hold this position for about 30 seconds to a minute. Once the time is passed you can then change your stance.

Lastly we practiced the side bridge. When practicing the side bridge you have to lie on your side with your elbow directly under your shoulder, while having your forearm flat on the floor and one leg on top of the other. Once you have accomplished that you will then lift your entire torso off the floor, while maintaining your body weight on your feet and elbow. Hold stance for 30 second to a minute.

After our gruelling 50 minutes of exercising our TVA's, we then had to move onto exercises that required one of those inflatable Swiss balls. Believe me it was not as fun as it sounded. Since we don't have any Swiss balls I will not explain the various exercises that I practiced in.

The core stability class was very enjoyable and informative class taught by a personal trainer who is a triathlon competitor and who is in excellent physical condition. From experience I can highly recommend this class to anyone.

## **White River Wado Kai Karate Tournament**

Saturday, February 21, 2004  
St. Basil's School  
White River, ON

Doors open @ 9am  
Competition begins @ 11am

Registration Fee: \$20.00

Family Rate: \$35.00

Contact Sensei Brad Lundquist – [bradlundquist@renegadeisp.com](mailto:bradlundquist@renegadeisp.com)

## **ANNOUNCEMENT!**

**University of Manitoba Wado Kai Karate Club is now operational!**

Classes are Wednesdays 8:00 – 10:00pm at the Frank Kennedy Centre,  
University of Manitoba

Contact Sensei Mark Forsyth for more info – [forsythmark@hotmail.com](mailto:forsythmark@hotmail.com)

## **How much energy does a Karate Class consume?**

Sensei James Freeman, Yodan

[contactbushiod@edmonton-karate.com](mailto:contactbushiod@edmonton-karate.com)

The quick answer is between 1000 and 1400 Calories if you are in a 1.5-2 hour class and weigh 70 kg. For a more complete picture, read on!

During Christmas, weight gain is an often-inevitable side effect of our well-deserved break from training. We generally maintain our training diet but reduce our workload, and with the plethora of special foods available, it is easy to store them as extra pounds.

In simple terms, weight gain occurs when the daily Caloric intake exceeds our daily use of Calories. I was interested in understanding just how much energy might be consumed in a karate class, and how this compares to other typical activities that my students and I undertake. To make the connection with the food we eat, you also need to understand the sources of energy, how they are stored, and how the body selects which store to use as its source of energy. There is a

large body of study in the area of sports nutrition, and in some cases, there is contradicting evidence about how the chemical processes work. I am not an expert, and so will simplify things for this article.

### **The Sources and Storage of Energy**

First, we'll start with a reminder about how energy is stored in the body, and the sources of energy for physical activity. The two primary sources of energy in the body are fat and carbohydrates. These come directly from the food we eat, either as Fat and Carbs, or as Carbs stored as Fat. Fat is the most efficient store, with 9 calories for every gram, while carbohydrates will produce 4 calories for every gram. Fat is stored in and around the internal organs and muscles, while carbohydrates are stored as glycogen in the muscles and the liver.

<b>Energy Stores</b>	<b>70 kg Athletic Male</b>	<b>60 kg Athletic Female</b>
Carbs: Liver glycogen	0 – 135 g (Ave = 70 g)	70 g
Carbs: Muscle glycogen	300 – 900 g (Ave = 400 g or 1600 Calories)	300 g (1200 Calories)
Intra-muscular Fat	500 g (4500 Calories)	500 g (4500 Calories)
Adipose Fat Tissue	7-10 kg	12-20 kg

### **How we burn fuel**

Everybody uses both carbohydrates and fat as energy sources in varying amounts at most different activity levels. At about ½ of Maximal Oxygen Uptake (light exercise

intensity), roughly 2/3 of the energy requirement is met by fat oxidation, but when the intensity increases to 75% of maximal oxygen uptake (moderate to heavy intensity), carbohydrates provide most of the energy requirements (oxidation of fat

is too slow a chemical process). If higher intensity activity is carried out over a longer period of time, it is possible to deplete muscle glycogen. 'Hitting the wall', is a familiar effect for marathon runners who have run out of muscle glycogen, and occurs at about the 20-mile point. In karate, if we are doing high-intensity intervals, either as drills, kata, or full-speed kumite, chances are, we are relying on muscle glycogen as our energy source. However, for slower, lower-intensity training such as randore, our body switches to fat oxidization for its energy.

### **How much fuel do we need?**

Your daily fuel requirements begin with the energy you require simply to remain alive. There are two ways to estimate this minimum requirement: Basal or Resting Metabolic Rate (RMR, BMR), or Active Metabolic Rate (AMR). BMR/RMR is the number of Calories you consume just staying alive and if you were to lie in bed all day. As appealing as this may seem, since we typically do not stay in bed all day, a better benchmark is the AMR, or Active Metabolic Rate, were we add additional Calories to sustain typical activities in a generally sedentary life. There are a number of sites on the Internet where you can calculate this:

[http://www.healthyonario.com/english/health\\_tools/calc\\_bmr.asp?channel\\_id=8&text\\_id=240](http://www.healthyonario.com/english/health_tools/calc_bmr.asp?channel_id=8&text_id=240)  
<http://health.discovery.com/tools/calculators/basal/basal.html>  
<http://www.room42.com/nutrition/basal.shtml>  
<http://www.urplace.com/LifeTools/BMR.aspx>

Some key general conclusions about BMR are:

- Women, on average, burn about 10-15% fewer calories than men.
- As we get older, our BMR decreases, about 2% for every decade after 20 years of age.
- People who exercise regularly have a higher BMR.
- People who are on calorie-restricted diets have a lower BMR- as much as 20% lower. The BMR drops so much during dieting because the body slows down to conserve energy and calories

BMR ranges from 1500 to 2000 Calories per day for most karate students, while AMR is likely between 2000 and 2500 Calories.

On top of this, then, we would add on the Caloric requirements from our chosen activities. Different sports or activities will burn a varying number of calories. Generally, the more muscle mass involved in the activity, the more calories will be required to sustain activity for a given period of time. (Trick Question: If I complete a Marathon at a 6-min mile pace, will I

use more Total Calories than the runner who completes the Marathon at a 12-min mile pace?)

Below is a generalized view of the Caloric Requirements of different sports. It is taken from a longer list at [www.nutristrategy.com](http://www.nutristrategy.com), which is an excellent resource for health and nutrition.

Sport or Activity	Calories/ kg/h	Cal/h for a 70 kg person	Sport or Activity	Calories/ kg/h	Cal/h for a 70 kg person
Aerobics, general	6	420	Running, 7 mph (8.5 min mile, 5:14 min km)	11.5	805
Aerobics, high impact	7	490	Running, 7.5mph (8 min mile, 4:55 min km)	12.5	875
Aerobics, low impact	5	350	Running, 8 mph (7.5 min mile, 4:37 min km)	13.5	945
Bicycling, <16.5 km/h, leisure	4	280	Running, 8.6 mph (7 min mile, 4:19 min km)	14	980
Bicycling, >33 km/h, racing	16	1120	Running, 9 mph (6.5 min mile, 4 min km)	15	1050
Bicycling, 16.5 – 20 km/h, light effort	6	420	Running, 10 mph (6 min mile, 3:41 min km)	16	1120
Bicycling, 20-22.5 km/h, moderate effort	8	560	Running, 10.9 mph (5.5 min mile, 3:23 min km)	18	1260
Bicycling, 22.5-26 km/h, vigorous effort	10	700	Running, stairs, up	15	1050
Bicycling, 26-32 km/h, very fast, racing	12	840	Sailing, boat/board, windsurfing, general	3	210
Bicycling, BMX or mountain	8.5	595	Shoveling snow, by hand	6	420
Bicycling, stationary, general	5	350	Skating, ice, 9 mph or less	5.5	385
Bicycling, stationary, light effort	5.5	385	Skating, ice, general	7	490
Bicycling, stationary, very light effort	3	210	Skating, ice, rapidly, > 9 mph	9	630
Bicycling, stationary, moderate effort	7	490	Skiing, cross-country, >8.0 mph, racing	14	980
Bicycling, stationary, vigorous effort	10.5	735	Skiing, cross-country, moderate effort	8	560
Bicycling, stationary, very vigorous effort	12.5	875	Skiing, cross-country, slow or light effort	7	490
Boxing, in ring, general	12	840	Skiing, cross-country, uphill, maximum effort	16.5	1155
Boxing, punching bag	6	420	Skiing, cross-country, vigorous effort	9	630
Boxing, sparring	9	630	Skiing, downhill, light effort	5	350
Calisthenics/Core-Stability Circuit Training (pushups, sit-ups), vigorous effort	8	560	Skiing, downhill, moderate effort	6	420
Calisthenics, home, light/moderate effort	4.5	315	Skiing, downhill, vigorous effort, racing	8	560
Dancing, aerobic, ballet or modern, twist	6	420	Sledding, tobogganing, bobsledding, luge	7	490
Fencing	6	420	Soccer, casual, general	7	490
Football, competitive	9	630	Soccer, competitive	10	700
Frisbee, ultimate	4	280	Squash	12	840
Golf, carrying clubs	5.5	385	Stretching, hatha yoga	4	280
Golf, general	4	280	Swimming laps, freestyle, fast, vigorous effort	10	700
Golf, miniature or driving range	3	210	Swimming laps, freestyle, light/moderate effort	8	560
Golf, pulling clubs	5	350	Swimming, backstroke, general	8	560
Golf, using power cart	3.5	245	Swimming, breaststroke, general	10	700

Hiking, cross country	6	420	Swimming, butterfly, general	11	770
Judo, karate, kick boxing, tae kwon do	10	700	Swimming, leisurely, general	6	420
Kayaking	5	350	Swimming, sidestroke, general	8	560
Pushing or pulling stroller with child	2.5	175	Swimming, synchronized	8	560
Race walking	6.5	455	Swimming, treading water, fast/vigorous	10	700
Racquetball, casual, general	7	490	Tai chi	4	280
Rock climbing, ascending rock	11	770	Tennis, doubles	6	420
Rope jumping, fast	12	840	Tennis, general	7	490
Rope jumping, moderate, general	10	700	Tennis, singles	8	560
Rowing, stationary, light effort	7	490	Walking, 2.0 mph, slow pace	2.5	175
Rowing, stationary, moderate effort	9.5	665	Walking, 3.0 mph, mod. pace, walking dog	3.5	245
Rowing, stationary, very vigorous effort	12	840	Walking, 3.5 mph, uphill	6	420
Running, 5 mph (12 min mile, 7:23 min km)	8	560	Walking, 4.0 mph, very brisk pace	4	280
Running, 5.2 mph (11.5 min mile, 7:05 min km)	9	630	Weight lifting or body building, vigorous effort	6	420
Running, 6 mph (10 min mile, 6:09 min km)	10	700	Weight lifting, light or moderate effort	3	210
Running, 6.7 mph (9 min mile, 5:32 min km)	11	770	Whitewater rafting, kayaking, or canoeing	5	350

From the source material, we can identify two lines that focus on activities that we do in our karate classes. The first is described as calisthenics done as circuit training. For our class in the Bushido Karate Association, this consists of core stability and strengthening exercises, and we typically complete 9-12 different sets of 8-10 reps in 30 minutes at the start of our class. A 70 kg person might expect to consume about 280 Calories during this portion of the class. Clearly, the number of Calories used in the rest of the karate class will depend on the intensity of the class, and the focus of training. Overall, if we take the average as 700 Calories, then during our 1.5-hour classes, a 70 kg person might expect to burn 980 Calories, while during a 2-hour class, you

would consume 1330 Calories. In a high-intensity class, where carbs are expected to provide the energy, this could really deplete the muscle glycogen stores, which as we said earlier, total to about 400 g capable of about 1600 Calories of energy.

If we put it all together, then our 70 kg student would need around 3500 Calories on a day where there is a 2-hour class.

During post-work-out recovery, where muscle glycogen levels have been depleted, recovery carbohydrates will be stored as glycogen and not converted to fat for storage. Where muscle glycogen levels are already topped up, then carbs ingested will be stored as fat.

(So even low-fat foods will add on the pounds!)

How much and what to eat to acquire this energy store is an article in and of itself, but suffice it to say that the Atkins diet is not the way to acquire the required energy for high-intensity exercise. Generally, an

athlete will look to acquire 55-65% of their Calories from carbs, and only 30% or less from Fat. The quality of the carbs (i.e. Glycemic index), the timing of ingestion, and the other food present all influence the overall quality of nutrition, and are not the subject of this article. Good Luck.

## **Thunder Bay Annual Workshop**

Sensei Elana O'Connor, Sandan

On January 10 & 11, 2004 NWWK hosted their annual senior blue/brown and black belt workshop in Thunder Bay, Ontario. Clubs in attendance included; Wawa, White River, Manitouwadge, Fort Frances, Devlin, & Hearst. Sensei's Rick Leveille, Raymond O'Connor, and Brad Lundquist were of the ranking Yodancha's that instructed portions of the clinic. The weekend consisted of refining the Mandatory Kata, as well as Kumite techniques. Throughout the two days many of the Karateka reviewed the black belt tape and applied the notable changes through training exercises. It was of great pleasure to observe that the clubs demonstrated consistency with one another and there were few differences. In addition to the above Sensei Raymond reviewed the Pinan Kata's with the blue/brown belt students in

preparation for future training, grading, tournaments, and teaching opportunities.

Regarding Kumite techniques, Sensei Rick demonstrated a variety of techniques focusing mainly on the proper use of timing, breathing, tai-sabaki movement, and commitment to following through with techniques. Through practicing with various partners in a two-step formation it was then decided to apply what was taught through light randori. Circuit training was also introduced to improve on cardiovascular abilities, thus allowing each individual to have several 30-second matches with various opponents with only 15 seconds of rest in between.

Overall the weekend was a great learning experience and an insightful way to start off the New Year. Thank you to all the instructors and participants for their endless support.

