CHAPTER ONE--About Turbo Kick
Format Description and Design ................................................................. 1-5
Training Course ....................................................................................... 5-6
Explanation of Rank ................................................................................ 6-7
PRO and Instructor Registration ............................................................... 7-8
Retesting and Renewal ........................................................................... 8-11

CHAPTER TWO--Basic Anatomy
Anatomical Position and Planes ............................................................... 12
Skeletal System ......................................................................................... 13
Muscular System ...................................................................................... 13-16
Joints and Anatomical Terms ................................................................. 17
Cardiovascular and Respiratory Systems ................................................. 17-20
Rate of Perceived Exertion ..................................................................... 20-21
Pregnancy and Turbo Kick ...................................................................... 21-22

CHAPTER THREE--Components of Turbo Kick
Benefits ...................................................................................................... 23
U.S. Surgeon General's Report ................................................................. 23-24
Warm-up and Cool Down ....................................................................... 24-28
Flexibility and Stretching ....................................................................... 28-20
Turbo Kick Technique ............................................................................. 30-55

CHAPTER FOUR--Teaching Skills
Music ........................................................................................................ 55-56
Building Techniques .............................................................................. 58-60
Cueing ..................................................................................................... 61-65
Attire ...................................................................................................... 65-66
Creating a Party ...................................................................................... 66-67

CHAPTER FIVE--Frequently Asked Questions ........................................... 68-70
### Training Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00-12:30am</td>
<td>Welcome from Powder Blue Productions About Turbo Kick™</td>
</tr>
<tr>
<td>12:30-1:30am</td>
<td>Basic Anatomy</td>
</tr>
<tr>
<td>1:30-2:20am</td>
<td>Components of Turbo Kick™</td>
</tr>
<tr>
<td>2:20-2:30am</td>
<td>Break</td>
</tr>
<tr>
<td>2:30-3:30pm</td>
<td>Turbo Kick Technique and Signature Moves</td>
</tr>
<tr>
<td>3:30-4:00pm</td>
<td>Teaching Skills</td>
</tr>
<tr>
<td>4:00-4:10</td>
<td>Review Exam Procedures</td>
</tr>
<tr>
<td>4:10-6:00pm</td>
<td>Written and Practical Exam</td>
</tr>
</tbody>
</table>
About Turbo Kick

Turbo Kick was developed to provide participants a safe, effective, and fun cardiovascular workout that utilizes kickboxing, boxing, and hip hop style moves and combines them with constant aerobic movement and predetermined transitions for the purpose of exercise. Turbo Kick was created through the cumulative efforts of experts in group exercise instructors, nationally ranked kick boxers, 3rd degree black belts, and Olympic trained fighters. The varied backgrounds of the individuals who helped shape this program are what make this training unique. Our experts in group exercise helped create a program that is safe, meets the standards of both ACE and AFAA, and provides the modifications necessary for group exercise. Our martial artists helped keep the movements accurate and developed movement patterns, form, technique and agility training specific to the ancient sport of kickboxing. Together, this team developed the ultimate cardiovascular challenge complete with bouts of intensity intervals and specially designed strength and toning sections.

Turbo Kick was not designed to teach people how to fight, defend themselves, or even as a form of martial art. Turbo Kick is a shadow boxing program and does not train its instructors in the use of physical contact, hand to hand, student to heavy bag, or student to kicking shield, etc. In the same way that “aerobics” borrows from classic dance, Turbo Kick borrows from ancient fighting forms. Turbo Kick is committed to evolving each year and placing emphasis on the “fun factor” of exercise and will provide instructors with cutting edge material that promises to sustain its popularity and member interest year after year.

FACTORS RELATED TO CONTACT BOXING

- Increased risk of injury.
- Classes must limit the number of students in order to adequately supervise.
- Equipment can be costly and difficult to store.
- Instructors need formal and extensive training in use of equipment.
- Members and untrained instructors should not hold bags, mitts, shields, etc.
- Turbo Kick instructors are prohibited from asking participants to make contact with themselves or each other.

Despite the inherent risks associated with contact based classes, when taught by a trained professional boxer or martial artist, contact classes can be exhilarating for students. We strongly encourage facilities to use only well-trained professionals to conduct such classes.
SAFETY REMINDER!
Finally, keep in mind the goal of your participants; 99% of your students have sought out a kickboxing class to improve their physical health and have some fun. The small number of students who may come to you looking for full contact, to learn a form of martial arts, to learn how to fight or to learn self-defense should be directed to another venue. The purpose of Turbo Kick is exercise. It was not designed to fulfill the needs of those looking for “contact” related boxing or kickboxing.

Traditional execution is modified for the purpose of reducing the risk of injury and minimizing overuse injuries. Turbo Kick classes do not use equipment, wraps, or gloves and does not prepare instructors to teach contact based classes.

FOCUS
The majority of participants in your classes are new to Turbo Kick and many are new to fitness in general. Kickboxing formats have become popular and highly attended in recent years. Much of this popularity can be attributed to the full-circle cycle that fitness trends seem to follow. Most kickboxing formats are repetitive, simple to learn, linear, intense, and in many cases high impact. You cannot help but draw comparisons to the original style of 80’s high impact aerobics. This may be its greatest appeal. Yet, when people try kickboxing, they also realize the fitness benefits of classes such as Turbo Kick. As the instructor you have the responsibility to educate participants on the “why” and “how” of what they are doing.

In order for students to learn a new skill at this level of intensity, they must be motivated, educated, encouraged, and focused. Although you are teaching the simplest of borrowed movement from martial arts, kickboxing, self-defense and basic aerobics, you must encourage proper execution, motivate by example, and educate them on target, body placement and weight distribution. You must master these skills yourself, before advancing. Don’t be rushed to start teaching. First, be certain that your form and technique is exemplary.

Anyone can become a trained instructor. It takes a true professional to recognize the importance of continuing their education and seeking out additional assistance and professional evaluation. Once you have become a trained instructor regardless of your perceived skill level, there is always more to learn. EVERYONE HAS ROOM FOR IMPROVEMENT!

MARTIAL ARTIST vs. GROUP EXERCISE INSTRUCTOR
There is an ongoing debate among fitness professionals and martial artists as to who is better suited to teach kickboxing in a group exercise setting. Martial artists, professional fighters, trained boxers and kick boxers may believe that the years spent perfecting their craft certainly could not be learned in a one weekend training course. The years of dedication, training and determination required to master the skill of these ancient arts is impressive. Contact based sports require precision, timing and movement awareness that comes only after hours, days and years of training.
For those who have spent years as students of martial arts, it is almost offensive to hear someone who is “self-taught”, declare themselves a “kick boxer”. A trained eye recognizes error of form, alignment, execution and instruction in someone who has never received formal training. Those who have trained in martial arts have a certain finesse that is beautiful to watch.

Group fitness instructors on the other hand, spend many years perfecting the art of a well-transitioned and perfectly formatted class. These individuals continue their education on a yearly basis and pride themselves on their ability to modify exercises which would be appropriate in a small studio or one on one setting, but which are deemed unsafe in a group exercise setting. Instructors often complain that those with a martial arts background and no formal group exercise training are unable to teach using the 8-count and have choppy transitions from one drill to the next, thus making it difficult for participants to follow. Group exercise instructors have learned how to teach to the general public and modify exercises so that class intensity and success remains constant.

Turbo Kick is a unique blend of these two backgrounds and, in a sense, “bridges the gap”. We believe that group exercise instructors without formal training in martial arts can become excellent Turbo Kick instructors, but not in one day. For many, it requires additional training and hours practicing the kicks and punches. For example, if you wanted to teach in-door cycling, you don’t need to be a long distance outdoor cyclist, but you do need to spend time perfecting your skills.

In addition, we believe both students of martial arts, and those who have never taught group exercise can be excellent Turbo Kick instructors, but not overnight. Those new to teaching group exercise may need to spend considerable time working on cueing skills, musical awareness and modifying their form to suit a group exercise environment. Whatever your background, perfecting the art of Turbo Kick will take practice and commitment.

**Format Description**

Turbo Kick classes continue to sweep the nation. Our pre-designed interval class uses no equipment, so it is very feasible and easy to learn. What is pre-design? From warm-up to the cool-down, the work has been done for you! We have researched, tested and designed a near “perfect” class that is yours for the taking. As a trained Turbo Kick instructor, you have the option of using our pre-designed material. By using the pre-designed format, you do not need to worry or wonder, “What am I going to do today?” Using the pre-designed Turbo Kick choreography makes it possible for instructors to “shine” by focusing on their personality, presentation, and motivation.

Each “Round” is a perfectly designed, complete class that has been tested in actual class settings with participants of various levels and in various areas of the country. This gives our Turbo Kick instructors a class with success built in. Finally, members say the top two reasons they choose one instructor’s class over another are music and the instructor’s personality. We give you the tools to have both with our recipe for the best kickboxing music on the planet. This is only available to trained Turbo Kick instructors.
New Rounds are released approximately every twelve weeks and include:

- Choreography DVD
- Choreography notes and instructions
- Music CD

**FORMAT DESIGN**

Turbo Kick is a 60-minute class and has been designed to offer instructors the ease of a pre-designed class. Turbo Kick classes are designed with a sport specific athletic warm-up, an advanced cardio section, using intensity intervals of kickboxing drills and increased tempo “sprints”, followed by work-recovery segments. It follows a linear progression, is formatted to fulfill group exercise standards and guidelines, and it provides optimal training results. All of these benefits are achieved as students advance through peaks and valleys of energy. Each Turbo Kick Round has eleven sections. They include:

- **Section 1:** Warm-up
- **Section 2:** Punches
- **Section 3:** Kicks
- **Section 4:** Punches and Kicks
- **Section 5:** Turbo (anaerobic drills)
- **Section 6:** Recovery
- **Section 7:** The Finale
- **Section 8:** Finesse (stylized kicks)
- **Section 9:** Leg Endurance
- **Section 10:** Abs/Push-ups
- **Section 11:** Mind/Body Cool Down

Sections 2-6 each have a “long” combination and a “short” combination—labeled as “A” and “B” when viewing the choreography notes. The “A” combination is typically 11 to 12 musical phrases, while the short combination is between 5 and 7 musical phrases. Each musical phrase is 32 counts/beats.

Each Round follows this simple format, giving instructors the opportunity to mix a variety of sections from their favorite, previous round(s). For example, it is possible to combine sections one, two and three from Round 18 with sections four, five and six from Round 6, and so on. By using the same format for each round, instructors can follow a proven and tested recipe for success. This familiarity makes transitioning from one round to the next easier for students as well. Once learned, this formula simplifies the “memorization” process for instructors.

**Training Course**

Turbo Kick is an 8-hour training course. You will leave this training with a complete class and the tools needed to teach Turbo Kick. Other trainings teach technique, but may fail to prepare instructors to teach and design a complete class. Turbo Kick does both and there are no hidden costs!
When you complete Turbo Kick training, you will receive:

Complete Round which includes:

1. Choreography DVD
2. Turbo Kick music CD
3. Choreography notes
4. CD-Rom Manual
5. CEC/CEUs

Course Exam
During the course of the day, you will learn the art of teaching a safe, fun, and energetic Turbo Kick class. Additional information on kickboxing technique, basic anatomy, and kinesiology will lay a foundation for understanding the dynamics of teaching group exercise classes. The day will conclude with a written and practical exam. You will have both lecture and practical time to gain the confidence, knowledge, and skills before taking either exam.

Practical Exam
The practical exam will test and rank each participant on the following criteria:

1. Musicality—how well you stay on the beat and use the music when performing.
2. Form and technique—how well you present each exam components with proper posture, form, and technique.
3. Range of motion—how well you demonstrate full range of motion on each exam component.
4. Movement quality—how well you perform with precision and confidence.

Written Exam
The written exam will include a compilation of 50 multiple choice and true/false questions on the material presented during Turbo Kick training.

Record of Completion
In order to receive a certificate of completion, participants must complete the practical exam and receive a score of 80% or higher on the written exam. Once you have completed your Turbo Kick training, taken the practical exam, passed the written exam, and been assigned a ranking, you are then eligible to purchase additional and future Rounds. Only those who have completed our Turbo Kick training process are eligible to use our Rounds, regardless of other format instructor training or certification they may hold.

Explanation of Ranking
Each Turbo Kick instructor is assigned a ranking upon completion of his/her Turbo Kick training. There are many organizations which provide each participant with a certificate of completion but do not distinguish excellent form from those instructors who need more practice. By providing a ranking of either “Gold,”
“Pass,” or “In Training,” group exercise managers are able to determine the skills of those applying to teach at their facility. Keep in mind, the rankings only refer to individual form, style, technique and performance and are not an assessment of your “teaching” ability. We are not able to accurately assess your teaching skills in a one-day training program. Therefore, an instructor with years of experience might receive a “pass” or “in training” ranking based solely on his/her dancing technique. Once an instructor has completed the Turbo Kick training, each individual club has the freedom to respect or ignore our ranking recommendations.

**GOLD:** This ranking is assigned to participants who exhibit exemplary musicality, style, technique and showmanship for 90-100% of the time and have that “something special” that is difficult to teach. Once you have memorized the choreography and can demonstrate excellent music utilization, you may begin teaching Turbo Kick®. “Gold” rankings are coveted. This rank is reserved for “stand-outs” and those who demonstrate more than great form. Gold instructors demonstrate continuous energy, explosive yet controlled style, and exemplary showmanship. In order to be eligible to apply for presenter status, you must first obtain a gold ranking.

**PASS:** This ranking is assigned to participants who have met all the required standards during the practical assessment. The vast majority of participants receive a pass ranking. However, there is a wide range of pass-level instructors. You may be very close to Gold or just above In Training. We recommend additional practice and training to help you improve. Once you have memorized the choreography and can demonstrate excellent music utilization, you may begin teaching Turbo Kick®. We believe Pass instructors have demonstrated the minimum level of skill required to teach others. Those who receive a pass have room to improve in order to obtain a Gold ranking.

**IN TRAINING:** This ranking is assigned to participants who are not able to demonstrate required minimum standards during the practical exam. We believe those assigned to this ranking are not yet ready to teach this format to others. We recommend additional training and practice before moving toward teaching. Most participants who originally received an “In Training” ranking do re-test. There is an additional fee for the re-test process.

**Using the Turbo Kick Name**

Our program is unique because we do not require nor charge a licensing fee to use our name. We encourage Turbo Kick instructors to use our name to promote their classes! If you use our trademarked name, you must follow our signature pre-designed program guidelines and use the Turbo Kick music. Instructors are prohibited from using the Turbo Kick music in other classes. To summarize, a class must use Turbo Kick music and be an accurate representation of the Turbo Kick pre-designed format to use the Turbo Kick name.

**PRO and INSTRUCTOR Registration**

Over the years, we have encountered many avid students who are interested in learning more about a format and/or getting trained, but are detoured by the thought of teaching. In fact, many want to take their expertise to the next level, but are intimidated by the thought of a practical test. Therefore, Powder Blue Productions developed two types of event registration, “Instructor” and "Pro”. The "Pro" status will
target those that want to improve their technique, want to learn more about the format, or see Pro as a way to ease into the idea of teaching. Those who register and attend as "Pro" will not receive a record of completion, CECs/CEUs, or a practical ranking, but they will be able to purchase Rounds and other associated materials. Those with a “Pro” status will not be able to teach until they complete the practical and written requirements of the training. If a Pro participant decides to transfer their registration to Instructor during the training, they can by simply upgrading their registration to include the additional fee.

<table>
<thead>
<tr>
<th>PRO Training</th>
<th>Instructor Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Eligible to buy CDs &amp; DVDs!</td>
<td>* Eligible to Teach</td>
</tr>
<tr>
<td>* Better workouts!</td>
<td>* Earn CECs/CEUs</td>
</tr>
<tr>
<td>* No Testing!</td>
<td>* Refine Form &amp; Technique</td>
</tr>
<tr>
<td>* Form &amp; Technique</td>
<td>* Use Trademarked format name</td>
</tr>
</tbody>
</table>

**Re-testing**

Instructors can re-test for a higher ranking in person at any Turbo Kick training for a processing fee of $35. We encourage everyone to upgrade their rank and/or strive for a Gold rank! Just pre-register for testing and attend only the practical portion of the day. Call 1.800.315.2505 for more information.

**Renewal Process for Instructor Training**

Turbo Kick Pro and Instructor status is good for two years. In order to preserve your status and eligibility to use the Turbo Kick name, teach the format, or purchase new Rounds, you must make certain your Pro or Instructor status is current. Both Pros and Instructors are required to update their Turbo Kick training within 30 days or less following the expiration date for $50. Renewals that are received after 30 days following the expiration date incur an additional charge. Prices are subject to change with reasonable notice.

**Revocation of Status**

Powder Blue Productions reserves the right to revoke a Pro or Instructor status for the following:

1. Teaching Turbo Kick without completing the required training.
2. Copying or sharing any materials with another person. (Turbo Kick choreography DVD, choreography notes, and/or music)
3. Improper use of the Turbo Kick name for a class/event that does not follow the guidelines.
4. Unprofessional teaching which could result in the injury of participants.
5. Non-payment on outstanding balances.
TRANSITIONING TO Turbo Kick®

Perhaps you have been teaching kickboxing for many years. Maybe your club has experienced a level of success using another style of cardio kickboxing. You may be thinking, “If it ain’t broke, why fix it?” In 1997 and 1998, kickboxing for fitness reached an all time high. The format was basic, athletic and repetitive. Consider that the same was true when “step aerobics” first burst on the scene in the late 80’s and early 90’s. In order to survive and to maintain interest with the students of group exercise, all formats must undergo evolution. Health clubs that offered kickboxing for several years without exploring its evolution experienced a rapid and sudden decrease in attendance. While basic, repetition drills are ideal for beginners, in order to maintain popularity, a successful kickboxing class must engage both the beginner and the advanced kick boxer in the same class. How is this done? Through the skillful crafting of choreography with built in layers, which allow the instructor to determine how much or how little to challenge his/her students.

Turbo Kick has been designed so that the choreography can be modified and simplified to be extremely basic or very advanced. The instructor determines how simple or complex the material should be.

If, to date, you had resisted the notion of “changing” your class, think of it less as change and more as an “evolution”. Most kickboxing classes are comprised of 4 basic punches, and 4 basic kicks. That’s it! With only 8 basic moves, one can predict that students might lose interest after several years of simplistic drills. Turbo Kick takes what you already know, what you’ve already mastered and transforms it into a workout that evolves to meet the needs of your individual classes and to meet the changing environment of group exercise.

Change is not easy. Help students experience this evolution in the most positive manner. The ultimate challenge may lie in helping your students enjoy the benefits of what may be a new style for them.

Here are some helpful hints:

"The people who resist change will be left behind by the growing number of people who see that better ways...are available to them."
-Bill Gates

"It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.” -Charles Darwin

People resist change for reasons that seem perfectly logical to them, at that time. Keep this in mind when introducing Turbo Kick to a group already familiar with a different style of class. It will help you understand that negativity and resistance can be attributed to this natural human reaction.

1. **Make change as painless as possible.** Play down the differences, emphasize the exciting new benefits and highlight the similarities. Make sure your key members and instructors are an integral part of your transition.

2. **Keep things similar during the transition.** Therefore, if your class is used to moving at 130 BPM and Turbo Kick is recorded at 138...then pitch down your music. If your class is accustomed to finishing with some heavy bag work, then for several weeks continue to finish with bag work. If your style is relatively basic, be sure only to teach the first level and resist the temptation to add anything
beyond the first most basic layer for the first couple of weeks. Let participants enjoy the workout, rather than feel overwhelmed.

3. **Be keenly aware of word choice and body language.**
Ask for assistance from your key members and instructors during the transition. Keep in mind that an instructor's word choice, negative body language and/or vocal inflection alone can set the tone for the transition or turn everyone against the idea. Explain to your "key" people the importance of their support and open mindedness during the transition. As a group exercise instructor, you are the leader. People look to you for guidance. Demonstrate confidence, certainty and decisiveness to help maintain the confidence of your students.

*Here some ideas on how to explain the change to members:*
"I have exciting news for you today. We all love kickboxing, but as you may have noticed, many of us have hit a plateau in our training. We are bringing the coolest new form of kickboxing to this club and it's going to help us all reach our fitness goals and have more fun in the process! Let me tell you a little bit about it... For starters, you're going to love the music! It means I'll have new music to keep you motivated. The music is put together so that when you hear the song change, we move on to the next drill. I can keep it really basic for the next couple of weeks and we'll add on tougher stuff as we get comfortable. The greatest part about this class is that it's designed in intervals of intensity. We'll burn more calories and fat! Oh, and I forgot to tell you the best part... this class designed to feel like a party!

Here's the favor I have to ask of you......Let's have open minds and try something that can take us to the next level. I promise that if you try it for three classes, you'll fall in love. It is a little different from the way my class was structured before, but all the kicks and punches are the same, just some new combos to really push us! I know you are going to fall in love with this."

1. **Tell them what to expect!** People fear change because the future seems to lack predictability. People prefer to know what is coming their way so they can at least mentally prepare for it. Here are some things we recommend you mention in your pre-class description:

   - "We'll do this new routine today, and I'll do the same routine on Tuesday as well. This means each time we do it, we'll get better and I'll add on difficulty when we're ready!"
   - "You're going to notice that it's a great balance of kicks and punches."
   - "Each time you hear a new song coming through... it means we'll be moving on to a new drill. But, if it looks to me like we're not ready. I'll stick with the drill we're in!"
   - "The class is designed in intervals, so don't be surprised if you feel winded at times. Don't worry, we'll recover. Also, at the 30-minute mark, we are going to do a really fun "Turbo" drill. You'll know it's time because you'll hear the siren! Just GO FOR IT!"
   - "You'll burn more calories today than you have in a long time!"

2. **Show them what to expect.** When introducing a new Round or when introducing Turbo Kick to a new group, it is recommended that you provide a brief review of some of the 'trickier' combos. There
is no need to preview the warm-up. However, by having your class spend about 5 minutes performing combos from each section which they have never seen before, you'll ensure their success and they'll be working out in the process.

**Step One:** Preview with the music off. Ask for each person to participate.

**Step Two:** Only preview the combos you feel necessary before Section 5, Turbo. Allow about 5 minutes for this preview.

**Step Three:** After you have previewed small portions of Sections 1 through 4, begin teaching the class. When the sirens go off at the beginning of Section 5, preview Turbo. Ask everyone to participate.

**Step Four:** Teach the Turbo Section. After Turbo finishes preview the last two sections briefly. This will help students recover from the anaerobic work of Turbo and slowly reduce heart rates.

3. **Don't try to fit it all in.** With your pre-class excitement and your mini-previews... you won't have time to fit in the whole class as it was designed, nor should you. Instead, your goal should be the success of your students. Don't worry if you don't get through the whole class! Don't feel as though you have to rush to the next drill or combo. Stick with the combo you're on until 80% of participants seem to have mastered it.

4. **Do it Cold Turkey!** Many instructors have tried to "wean" their students on to Turbo Kick by giving them a little bit of Turbo Kick and a little bit of their old style. It seems like a good idea in theory, but it rarely works. People instantly cling to their comfort level with the "old stuff" and focus on their level of "discomfort" with the new material. The result is often a quick return to old habits. With thousands of instructors across the globe, we have learned, time and time again, that the best transition is one that is made “cold turkey”. If your students need assurance, promise them you'll return to your old style if after a month they don't love it. Give it a month... guaranteed they'll be hooked and see and feel amazing results!
Basic Anatomy

Every time you walk, sit down in a chair, or carry groceries from the car, you use your bones, muscles and joints. There are approximately 650 muscles that work together with 206 bones to enable us to move through our everyday physical activities.

Anatomical Position

The anatomical position is a standardized positioning of the human body. It provides a common reference point when describing parts of the body and their relation to each other whether a person is standing, lying down, or in any other position. There are approximately 650 muscles in the human body and account for 40% of a person’s weight.

A person is in the anatomical position when:
- The body is standing erect with the feet together.
- Arms are by the side with the palms facing forward.
- The head, eyes and toes are facing forward.

ANATOMICAL PLANES

The anatomical planes geometrically divide the body and describe body position and movement. There are three primary, imaginary planes that pass through the body in the anatomical position.

1. Sagittal—Vertically divides the body into left and right sides.
2. Frontal or Coronal—Vertically divides the body into front and back parts.
3. Transverse—Horizontally divides the body into upper and lower par
**SKELETAL SYSTEM**
The human skeletal system consists of bone, cartilage, ligaments, and tendons whose main job is to provide support for the body against the pull of gravity and provide a structure for the muscles to attach.

**Primary Function**
- Provide a framework for the body
- Protect organs
- Work with muscles to cause movement
- Produce red blood cells and store minerals

**Divisions of the Skeleton**
The skeleton is often grouped into two broad categories:

1. **AXIAL**—The forms the skull, vertebrae column, and the chest or thorax. The axial skeleton provides the main structural support for the body and protection for the central nervous system and organs of the head, neck, and trunk.
   - Skull
   - Vertebrae Column (Adult spine has 26 moveable bones)
   - Thorax (Sternum and 24 or 12 pairs of ribs)

2. **APPENDICULAR**—The consists of the upper and lower limbs of the pelvic and chest girdles. The pelvic and chest and pelvic girdle anchor the limbs to the axial skeleton.
   - Pectoral or Shoulder Girdle (clavicle and scapula)
   - Upper extremity (Arms)
   - Pelvic girdle (Hip bones)
   - Lower extremity (Legs and feet)

**MUSCULAR SYSTEM**
Bones and joints do not work alone and need some “pull” from the muscles in order to move. The predominant function of muscles is to contract. Nearly all movement in the body is a result of muscle contraction. Even when you are standing still, the skeletal muscles are making fine adjustments to hold the body in a stable position. Muscles and ligaments work together to support the spine, hold it upright, and control movement both when the body is at rest and when it is active. It is the integrated action of the joints, bones and muscles that produce movements such as walking, running and lifting.
Primary Function
- Produce force
- Cause locomotion and movement
- Maintain upright posture
- Produce heat
Muscle Contraction
Muscles are composed of cells which contain small strands of protein and contract when stimulated. The contraction is controlled by the central nervous system (brain and spinal cord). When a muscle contracts, a muscle cell, or fiber lengthens or shortens. When the stimulation stops, it returns to its original state. Muscles are grouped according to their composition. Their contractions also fulfill other important functions such as respiration, joint stability and heat production.

1. **Skeletal (striated) muscles** move your bones and are the muscles you can see and feel. Both ends of the skeletal muscle attach to a bone by tendons and come in pairs. One muscle moves in one direction and the partner muscle moves it back the other way. They are voluntary muscles which mean when you “think” about contracting them, your nervous system tells them what to “do.”

2. **Smooth muscles** are found within the walls of the organs. They have the capacity to stretch and maintain tension for long periods of time. Smooth muscles are involuntary which means you do NOT think about the movement for it to occur.

3. **Cardio muscles** are found only in the heart and are specialized and involuntary. We do not have to think about the movement for the heart muscles to work.

Types of Muscle Action or Contraction
- **Isotonic or Dynamic**—the muscle contracts or shortens during movement. Muscle tension varies and the muscle is strengthened throughout the range of movement. Most of physical training uses isotonic action.
- **Isometric**—the muscle contracts but does not shorten. There is no movement and the length or joint angle does not change. Muscle develops “static” strength—the strength needed to push or pull an object or hold it up.
- **Isokinetic**—the muscle contracts and shortens at a constant rate of speed. Special equipment is needed to provide consistent resistance for isokinetic muscle action.

Eccentric and Concentric Contraction
- **Eccentric or “positive”** contraction involves the muscle lengthening during an exercise. Example: downward motion of a bicep curl.
- **Concentric or “negative”** contraction happens when a muscle develops tension, reacts, and shortens in lengthen. Example: upward motion of a bicep curl.

**MUSCLE GROUP UTILIZATION**

<table>
<thead>
<tr>
<th>Movement</th>
<th>Muscle Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jab</td>
<td>Deltoids, pectorals, triceps, biceps, trapezius, serratus anterior, latissimus dorsi</td>
</tr>
<tr>
<td>Cross punch</td>
<td>Abdominals, pectorals, trapezius, latissimus dorsi, serratus anterior, triceps, biceps</td>
</tr>
<tr>
<td>Hook</td>
<td>Biceps, anterior deltoid, obliques, latissimus dorsi</td>
</tr>
<tr>
<td>Uppercut</td>
<td>Trapezius, latissimus dorsi, obliques, biceps, triceps, pectorals, anterior deltoid</td>
</tr>
<tr>
<td>Kicks and knees</td>
<td>Iliopsoas, quadriceps &amp; hamstring group, gluteus medius &amp; maximus</td>
</tr>
<tr>
<td>Bob and weave</td>
<td>Abdominals, erector spinae, obliques</td>
</tr>
<tr>
<td>Jump rope, speed bag</td>
<td>Forearms, trapezius, quadriceps group. gastrocnemius, soleus, deltoids, and your cardiovascular system</td>
</tr>
</tbody>
</table>
## Shoulder Joint Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Primary Movers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexion</td>
<td>Deltoid</td>
</tr>
<tr>
<td>Extension</td>
<td>Latissimus Dorsi</td>
</tr>
<tr>
<td>Abduction</td>
<td>Deltoid, Supraspinatus</td>
</tr>
<tr>
<td>Adduction</td>
<td>Latissimus Dorsi</td>
</tr>
<tr>
<td>Internal rotation</td>
<td>Subscapularis</td>
</tr>
<tr>
<td>External rotation</td>
<td>Infrspinatus, Teres minor</td>
</tr>
<tr>
<td>Horizontal adduction</td>
<td>Pectoralis major</td>
</tr>
<tr>
<td>Horizontal abduction</td>
<td>Deltoid</td>
</tr>
</tbody>
</table>

## Pectoral Girdle Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Primary Mover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevation</td>
<td>Trapezius, Levator scapulae</td>
</tr>
<tr>
<td>Depression</td>
<td>Trapezius</td>
</tr>
<tr>
<td>Abduction</td>
<td>Serratus Anterior</td>
</tr>
<tr>
<td>Adduction</td>
<td>Trapezius</td>
</tr>
<tr>
<td>Downward rotation</td>
<td>Rhomboids</td>
</tr>
</tbody>
</table>

## Anatomical Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexion</td>
<td>Decreases the angle</td>
<td>Lifting the knee</td>
</tr>
<tr>
<td>Extension</td>
<td>Increases the angle</td>
<td>Lifting the leg to the back</td>
</tr>
<tr>
<td>Abduction</td>
<td>Away from the midline</td>
<td>Side leg lift</td>
</tr>
<tr>
<td>Adduction</td>
<td>Toward the midline</td>
<td>Bringing leg from side to center</td>
</tr>
<tr>
<td>Circumduction</td>
<td>360° circular motion</td>
<td>Circling the arm and shoulder</td>
</tr>
<tr>
<td>Rotation</td>
<td>Movement around axis</td>
<td>Turning the head</td>
</tr>
<tr>
<td>Anterior</td>
<td>Front of the body</td>
<td>Knee cap is on anterior side of knee</td>
</tr>
<tr>
<td>Posterior</td>
<td>Back side of the body</td>
<td>Heart is posterior to the sternum</td>
</tr>
<tr>
<td>Inferior</td>
<td>Below</td>
<td>Knees are inferior to the hips</td>
</tr>
<tr>
<td>Superior</td>
<td>Above</td>
<td>Lungs are superior to the stomach</td>
</tr>
<tr>
<td>Medial</td>
<td>Closest to the midline</td>
<td>Big toe is medial to the 5th toe</td>
</tr>
<tr>
<td>Lateral</td>
<td>Farthest from the midline</td>
<td>Ears are lateral to the mouth</td>
</tr>
<tr>
<td>Deep</td>
<td>Further from the surface</td>
<td>Example: Transversus abdominis</td>
</tr>
<tr>
<td>Superficial</td>
<td>Closer to the surface</td>
<td>Skin is superficial to the muscle</td>
</tr>
<tr>
<td>Proximal</td>
<td>Closest to point of attachment</td>
<td>Hip is proximal to the knee</td>
</tr>
<tr>
<td>Distal</td>
<td>Farthest from the trunk</td>
<td>Knee is distal to the hip</td>
</tr>
<tr>
<td>Bilatera 1</td>
<td>Both sides of the body</td>
<td>Both arms doing bicep curls</td>
</tr>
<tr>
<td>Unilateral</td>
<td>One side of the body</td>
<td>Throwing a softball is unilateral action</td>
</tr>
<tr>
<td>Prone</td>
<td>Lying face down</td>
<td>Push-up position</td>
</tr>
<tr>
<td>Supine</td>
<td>Lying face up</td>
<td>Abdominal crunch position</td>
</tr>
</tbody>
</table>


**Joints**

Joints are where two bones come together. Most joints are moveable, allowing the body to move in different directions and ways. Joints are classified by structure or according to movement.

- **Cartilage** “cushions” the joints. Cartilage (rubbery, flexible substance) prevents wear and tear as the joint moves and helps reduce the friction of movement.
- **Synovial membrane** “seals” the joint. The synovial membrane secretes synovial fluid (a clear, sticky fluid) around the joint to lubricate and nourish it.
- **Ligaments** “connect” bones to other bones. Ligaments (tough, non-elastic bands of connective tissue) surround the joint to give support and limit movement in the joint.
- **Tendons** attach the muscle to the bone and “control” the movement of the joint.
- **Bursas** are fluid-filled sacs between bones, ligaments, or other adjacent structures to help cushion the friction in a joint and “protect” soft tissues as they pass by boney projections.

**Joint Classification by Structure**

1. **Synovial**—bones are joined at a fluid-filled space lined with synovial membrane which acts as a lubricant to help the joints move easily. The main joints in the hip, shoulders, elbows, knees, wrists and ankles, are moveable joints filled with synovial fluid.
2. **Cartilaginous**—attached by cartilage, little movement. Example: ribs.
3. **Fibrous**—bones come in very close contact and are separated only by a thin layer of fibrous connective tissues. The sutures of the skull are examples of immovable, fibrous joints that connect tissue but do not allow movement.

**Cardiovascular System**

The cardiovascular system consists of the heart, arteries, capillaries, and veins. The heart acts as a pump and has four chambers: two on the right and two on the left.

The effects of aerobic exercise on the cardiovascular system:

- Improved heart strength and hypertrophy (growth in size)
- Increased stroke volume (volume of blood pumped per beat or stroke)
- Increased blood flow
- Increased number of capillaries in the muscle

**Respiratory System**

The respiratory system supplies oxygen, eliminates carbon dioxide, and helps regulate the acid base balance of the body. The respiratory system is comprised of the lungs and the series of passageways leading to and from the lungs, mouth, throat, trachea, and bronchi.

The effects of aerobic exercise on the respiratory system include:

- Increase efficiency of oxygen use
- Allows the body to make greater use from every breath
• Increase the amount of cardiac output
• Increase the amount of blood to the muscle

**Aerobic and Anaerobic Training**

**Aerobic exercise** is defined as being “in the presence of oxygen.” In practical terms, you are probably sweating, breathing deeply and heavily, and starting to get the “this is awesome” feeling from endorphins. It is generally 50-80% of your maximum heart rate. **The key is that you are not breathless.**

**Anaerobic exercise** involves working at high intensity levels (80-100% of maximum heart rate) for brief periods of time (10 seconds – five minutes). It is so strenuous that muscles begin working beyond their oxygen capacity. You will feel slightly breathless and pushed to your max. Working in intervals of aerobic and anaerobic training is an excellent way to improve fitness levels and break through training plateaus.

**Aerobic and Anaerobic Training:** Involves high intensity exercise (80-100% of maximum heart rate) for brief periods of time (10 seconds- five minutes) with rest or relief, i.e. walking/jogging, to allow the heart rate to decline. One of the best ways to wake up your workout is to alternate between aerobic and anaerobic zones. To improve the efficiency of most systems of the body, whether it’s the cardiovascular or skeletal muscle system, the system must be “taxed”. Personal trainers and exercise physiologists have long called this the “overload principle”. **The Overload Principle** refers to the improvement experienced when a system or muscle is made to work harder than it is accustomed. For example, when someone is accustom to lifting a five pound dumbbell and progresses to a 10 pound dumbbell, the end result is an overload to the muscle, in turn producing a system capable of lifting more than the original 5 pounds. When training anaerobically, the aerobic system is overloaded, thus pushing the ceiling of one’s aerobic threshold. Training in this mode increases the aerobic enzyme capacity allowing greater use of oxygen. The increased cardiac output combined with the increased extraction capability yields not only a greater maximum aerobic capacity, but also elevates one’s anaerobic threshold.

**Benefits of Aerobic/Aerobic INTERVAL TRAINING**

1. **Provides better adaptation to the nervous system** to the desired movement pattern. By running for short periods at high intensity you will be trained for performance at this pace. If you ran for a longer duration at a lower intensity you would thereby train the body for a slower pace. However, training in intervals prepares the nervous system for the physiological demands of a quicker pace.
2. **Improves adaptations in the aerobic metabolic systems in the muscles.** You can therefore exercise for longer periods of time at your maximum limits. The mitochondria systems for replenishing ATP (source of energy) will be stressed during your training and will be better equipped to provide you with this source of energy.
3. **Improves dynamic anaerobic capacity.** Improves anaerobic replenishment of ATP.
4. **Prevents boredom.** Keeps interest level high. Most report an increased interest in training when intervals are used versus a steady state training regimen.
5. **Recruits different muscle fiber types.** By working in intervals of aerobic and anaerobic drills, the body recruits the use of both slow and fast twitch muscle fiber.
6. **Helps create "overload".**
Techniques for Aerobic and Anaerobic Interval Training

Sprinters train by running short distances at maximum intensity and near race pace. Walking or a slow paced jog might be considered appropriate recovery work. In training for longer distances, exercise intervals should be at least one minute. In Turbo Kick™, each class is designed with several intervals in each section. These intervals are typically less than one minute and may include such things as kicks with arms overhead, high knees with synchronized punching, continuous kicking, and other sport specific drills. A working recovery is always immediately following, i.e. bob and weave, half tempo punching, or other activities of decreased intensity. This concept can be used in any mode of exercise.

Please note: For new exercisers, steady state aerobic activity may be more suitable for general health enhancement and beginning levels of physical fitness. Interval training, however, is more effective for increasing tolerance to anaerobic activity and pushing the limits of ones aerobic capacity. Anaerobic drills can be modified by asking participants to keep their perceived rate of exertion lower.

Calorie Expenditure

In nearly every class students will ask you how many calories they can burn in a Turbo Kick class. The answer is not a simple, finite number. The truth is, many factors are at work. A simple honest answer is “a lot!” However, to accurately determine caloric expenditure during a one hour Turbo Kick class, consideration of recent studies conducted by the American Council on Exercise (renowned educator and researcher, Dr. Len Kravitz, Ph.D.) and a team of researchers from the University of Mississippi are essential. Both studies measured heart rate, caloric consumption, oxygen consumption and ratings of perceived exertion for each of four kickboxing concentrations: upper-body predominant (e.g., upper cuts, jabs); lower-body predominant (e.g., kicks); and combination of upper and lower body; and conditioning (e.g., jumping jacks, simulated rope jumping).

The study included 15 female participants with an average weight of 135 pounds. Not surprisingly, more calories were burned during exercises utilizing a combination of upper- and lower-body movements. Furthermore, participants in the ACE study also maintained a heart rate of 75-85 percent of maximum, well within the recommended 65-85 percent range for aerobic exercise. Overall, caloric expenditure in this experiment ranged from 6.45 calories per minute (with predominately upper-body exercises) to 8.3 calories per minute (with an upper/lower body combination). Caloric findings indicate that most (Non-Turbo Kick®) cardio kickboxing participants can expect to burn an average of 350 to 450 calories per hour - less than original estimates, but enough to be considered sufficient exercise.

Interesting considerations: Participants of this group were exclusively women. The reported findings did not indicate the speed (beats per minute), or intensity, at which participants were asked to perform the exercises. The findings also failed to note the duration (length of time) that participants were asked to remain within their target heart rates. For example, the standard kickboxing class might include less than 30 minutes of intense cardiovascular work, paired with 15 minutes of warm-up, and 15 minutes of cool down and conditioning. Participants (in this type of class) remaining in their target heart zones for a sustained period is unlikely. Finally, the studies compared the intensity of the kickboxing activity to that of a brisk walk. Most likely, Turbo Kick participants would equate their aerobic/anaerobic intensity of a typical one-hour class to that of a fast jog or a 5K paced run. Experts
estimate running at a 5K pace of 7 to 8mph to burn between 9 and 10 calories per minute. Dr. Carl Foster’s research, associate professor of Medicine at the University of Wisconsin Medical School and Coordinator of Sports Medicine and Sports Science for the United States Speed Skating Team, concluded that working in intervals expended nearly twice as many calories as steady state aerobic exercise. A participant working at a “comfortable” level of intensity in a steady state could expect to burn as much as 500 calories per hour, where as someone working in 1:1 work/recovery intensity could expect to burn up to between 700 and 900 calories (if working continuously for one hour). The typical Turbo Kick class includes 45 minutes of aerobic/anaerobic cardiovascular conditioning, followed by 15 minutes of conditioning.

To date, no scientific analysis has been commissioned on the calorie expenditure of the average Turbo Kick class, and thus, further research is warranted to compare reported findings with regard to all varying types/styles of cardio kickboxing. Based on the most recent data collected, specific class structure and adjustments for anaerobic/anaerobic conditioning vs. steady-state conditioning, professionals have estimated Turbo Kick to burn between 500 and 800 calories per hour.

Obviously, a broad range exists due to the mere fact of individuality. Take a look around the room the next time you’re in a Turbo Kick class. By examining the participants, this exposes a wide variety of body shapes and sizes, varying energy levels as well as varying skill levels. Consider that the following will affect caloric expenditure from person to person:

1. Intensity
2. Full use of levers (extending punches and kicks)
3. Combined upper and lower body exercises
4. BMI (Body Mass Index)
5. Metabolic rate

The harder you work, the more calories and fat you’ll burn!

**Rate of Perceived Exertion**

An excellent way for participants to monitor intensity is to use the Borg’s Rating of Perceived Exertion or RPE. This is a subjective scale developed to help a person assess their personal level of intensity, i.e. how hard they are working. Most everyone is familiar with a system of ranking on a scale from one to ten, with ten being the best/most/or highest. RPE correlates well with this method of approximating exercise intensity as opposed to actually taking the heart rate.

**Benefits of using RPE method:**

1. Ability to monitor intensity at all times based on how a person feels
2. No need to stop and take a pulse
3. Does not require a mathematical equation and is simple to understand
RPE SCALE

<table>
<thead>
<tr>
<th></th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Very, very light</td>
</tr>
<tr>
<td>.5</td>
<td>Very light</td>
</tr>
<tr>
<td>1</td>
<td>Light (weak)</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
</tr>
<tr>
<td>3</td>
<td>Somewhat hard</td>
</tr>
<tr>
<td>4</td>
<td>Heavy (strong)</td>
</tr>
<tr>
<td>5</td>
<td>Very heavy</td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Very, very heavy (almost max)</td>
</tr>
</tbody>
</table>

PREGNANCY AND Turbo Kick

Recommendations for Exercise in Pregnancy and Postpartum (1995 guidelines)

1. Mild to moderate exercise routines. Exercise at least three times per week preferable to intermittent activity.
2. Avoid exercises in the supine position (lying with face up) after the first trimester as this may decrease cardiac output in some pregnant women.
3. During the first trimester, always augment heat dissipation by drinking plenty of water, wearing cool clothing and exercising in an optimal/cool environment.
4. Be aware of the decreased oxygen available for aerobic exercise during pregnancy. Modify exercise intensity according to maternal symptoms.
5. Stop exercising when fatigued. Do not exercise to exhaustion.
6. In some cases weight-bearing exercises may be continued at intensities similar to those prior to pregnancy. Non weight-bearing exercises such as cycling or swimming will minimize the risk of injury and facilitate continuation of exercise during pregnancy.
7. A woman's changing size, shape and weight (morphologic changes) should serve as a relative contraction to the types of exercises in which loss of balance could occur. Be especially mindful of morphologic changes in the third trimester.
8. Avoid any type of exercise involving the potential for even mild abdominal trauma.
9. Pregnancy requires an additional 300 kcal per day to maintain metabolic homeostasis. The pregnant exerciser needs to ensure an adequate diet.

Many of the physiologic and morphologic changes of pregnancy persist four to six weeks postpartum.

CONTRADICTIONS TO EXERCISE

The above recommendations are intended for women without additional risk factors for adverse maternal or prenatal outcome. Again, consider that the above recommendations are from 1985 and have been “loosened” in recent years. However, as many physicians choose to recommend these more conservative guidelines, it is best to be familiar with their content. Fitness instructors should respect the medical recommendation of the pregnant participant’s attending physician. These guidelines have
been updated several times in recent years. It is not uncommon for physicians to offer vastly different guidelines from one another.

**Conditions considered to be contradictions to exercise during pregnancy:**
- Pregnancy-induced hypertension.
- Pre-term rupture of membranes or labor during the prior or current pregnancy or both.
- Incompetent cervix or cerclage (a surgical procedure to close the cervix to keep the fetus intact in utero)
- Persistent second or third trimester bleeding.
- Intrauterine growth retardation.

**Need careful evaluation:**
- Chronic hypertension.
- Active thyroid, cardiac, vascular or pulmonary disease.
- Other medical or obstetric conditions.

Guidelines and restrictions followed by health practitioners, obstetricians and gynecologists have loosened in recent years. Many health professional and medical doctors choose to err on the side of caution and continue to promote more conservative guidelines. If a participant is noticeably pregnant or indicates such, recommend she consult with her physician before taking your class. While you may not be able to restrict her participation, it is best to strongly encourage her to seek medical release before doing so.

**General considerations for exercise and pregnancy**
1. Consult with your physician prior to beginning this or any exercise program.
2. Modify all kicks and knees to no higher than knee or thigh height
3. Stress the importance of proper water intake
4. Avoid excessive trunk rotation and hip extension
5. Maintain moderate core temperature
6. Consider low impact modifications
7. Lower exercise intensity
8. Should contractions or cramping begin stop and immediately consult your physician.
9. Incontinence: Some women may experience urinary leakage as a result of the jumping sections. Practicing kegel exercises will help in these circumstances.
Components of Turbo Kick

Benefits of Turbo Kick

- Cardio respiratory training
- Variable intensity training
- Flexibility
- Activity adherence
- Psychological well-being

Turbo Kick is fun and provides fitness benefits for the participant. According to the American Heart Association guidelines, Turbo Kick contributes to the aerobic fitness requirements.

U.S. Surgeon General's Report

As instructors, we are aware of how physical fitness impacts the mental and physical health of everyone. Statistics still demonstrate that we need to continue promoting these benefits in everything we do and with everyone we come in contact with each day. Here are some facts from the US Surgeon General’s Report:

- More than 60% of U.S. adults do not engage in the recommended amount of activity.
- Approximately 25% of U.S. adults are not active at all.
• Social support from family and friends has been consistently and positively related to regular physical activity.
• Exercise reduces the risk of dying from heart disease, developing high blood pressure, colon cancer and diabetes.
• Helps maintain healthy bones, muscles and joints.
• Reduces symptoms of anxiety and depression and fosters improvements in mood and feelings of well being.
• Helps control weight, develop lean muscle and reduce body fat.
• According to the US Department of Health and Human Services, CHD (coronary heart disease) is still the leading cause of death in the United States for both men and women.

Current Guidelines for Healthy Adults (American Heart Association, 2007) recommends:

• Moderate aerobic exercise for 30 minutes, 5 days a week. The 30-minutes can be broken up into 10-minute increments.

or

• Vigorous aerobic exercise for 20 minutes, 3 days a week.
• Add strength training 2 days a week.

NOTE: A change since 1995 indicates that short bouts of exercise of at least 10 minutes can be added up to the total time needed. Moderate exercise noticeably increases your heart rate and breathing rate. You may sweat, but you can still carry on a conversation. Vigorous exercise is when your heart rate is substantially increased and you are sweating. Your breathing is rapid and you can only speak in short phrases.

Warm Up

The purpose of a warm-up remains the same regardless of the format you teach. A warm up should be designed to do the following:

• Gradually warm the body
• Increase/raise core temperature
• Pump blood into the large muscle groups
• Provide a rehearsal effect for the activity in which you are about to participate

A warm-up should be as basic and specific as possible with emphasis on large muscle groups. Shuffling, running, jumping jacks, kicks, and jumping rope are not the safest or most effective ways of warming up. These types of activities have been long time favorites of martial artists, these activities only recruit small muscle groups such as the calves and shins (tibialis anterior, soleus, gastrocnemius) and do not prepare students for kicks and knees that require increased blood flow and a more thorough warm-up. In addition, activities such as jumping jacks, running, and kicks may be too strenuous and possibly cause injury without a gradual warming of the body.
Your lower body warm-up should focus on using the quadriceps, gluteal, and hamstring groups. An exaggerated bob and weave and squats are excellent examples. The upper body can be warmed up using any series of punches executed with control of speed and accuracy. Sporadic or double time punching is not recommended during the warm-up.

This class elicits muscles of the trunk like no other format. To avoid trauma to the muscles of the back and abdominals, include controlled trunk rotation (turning in-ward and outward around the vertical axis of the vertebral column) and lateral flexion (bending at the hip from side to side.) The trunk rotation and lateral flexion should be proportionate to what you will be doing in class. Remember that your warm-up activities should not be “larger” than what you will actually be doing in the core of your class. Warm-up activities should be performed on a smaller scale, slowly building intensity and range of motion.

The warm-up is a rehearsal for what you will do in the core of your class. For that reason, your warm-up should include the four basic punches and mechanics used to execute knees. Kicks should be reserved for a later section of your class as the body is not properly warmed and students often overestimate their flexibility, resulting in hamstring injuries.

The pre-designed Turbo Kick warm-up should produce a light perspiration, increased blood flow through the large muscle groups, a rehearsal for the core of the class, and a gradual warming of the muscles. The purpose of the warm-up is not to improve flexibility. With only 9 to 10 minutes of activity, the purpose is to warm-up so as to provide greater flexibility within one’s established range of motion. The “stretching” or limbering performed during your warm-up should be dynamic, i.e. controlled rhythmic movement.

**STRETCH**

There has been controversy over which flexibility exercises are best, whether to stretch pre or post exercise and what mode of training to use. Despite this debate and both conclusive and inconclusive research conducted to date, most fitness professionals agree that the principles of stretching should be a part of every fitness program and that stretching should be performed both before and after exercise but for different reasons and with different technique. As discussed earlier, the stretching during the warm-up phase of your class should be aimed at improving dynamic flexibility and increasing blood flow to muscles and tissues.

Post aerobically, body core temperatures are found to be at their highest. As such during your final stretch segment, i.e. post-aerobic, static stretching of all the major muscle groups is encouraged to improve flexibility. Stretching after exercise will ensure muscle relaxation, facilitate normal resting length, circulation and facilitate the removal of unwanted waste such as lactic acid from the muscles. This is also the time for you to “connect” with your students. It is helpful to explain the likelihood of delayed on-set muscle soreness and what they can expect to feel.
TYPES OF STRETCHING

**Dynamic stretch** involves controlled rhythmic, not ballistic movement.

**Ballistic stretch** is high-force, short duration stretch using rapid bouncing or pulsing movement.

**Static stretch** involves a low-force, long-duration stretch that holds the desired muscles at its greatest possible length for 5 to 30 seconds.

Dynamic stretching should be performed with control and movement. Static stretch at this point should be used sparingly (less than 5 seconds) simply because it is less effective and does not pump blood in the large muscle groups. Reserve static stretching for the cool down.

In most formats, ballistic stretching has been deemed high risk and/or inappropriate. Yet, kickboxing has several basic kicks and knees that involve what some may consider a ballistic stretch of the iliopsoas (hip flexors). There are two muscles that cross the hip joint and act on the thigh that work together with the iliacus as powerful flexors of the hip and thigh. These muscles lift the thigh creating flexion at the hip of the lifted leg. When properly executing a knee or front kick, there is a slight hyperextension at the hip joint of the opposite or supporting leg. This hyperextension is the action of the hamstring muscles and gluteus maximus. The action required to properly execute kicks and knees is forceful and ballistic. Therefore, in order to prepare the body for Turbo Kick, we incorporate a modified, controlled ballistic stretch for the hip flexors. The benefit outweighs the risks when performed with precision. Educate your students and provide a reason for every movement. The Turbo Kick warm-up is relatively basic and remains the same from Round to Round. During the warm-up, this will allow you to face your students (using mirror image) to connect and communicate with students.

Cool Down

Turbo Kick is ideal for increasing flexibility in the hamstrings and lengthening the hip flexors that are often shortened by other group exercise formats. The reason for this is because of the dynamic or sometime ballistic stretch that takes place with each kick or knee. However, you should never forget the importance of a proper cool down. The purpose of cool down is nearly the exact opposite of the warm-up. When we refer to a cool-down, our definition encompasses all segments of the class that follow the aerobic condition segments. Cool downs should be designed to:

- Gradually reduce body temperature
- Decrease heart rate
- Increase flexibility
- Relax participants
- Connect with participants
- Praise and correct form

Turbo Kick classes have been structured to provide strength, finesse, and success as part of the cool down experience. Often when the cardio portion of a class is over, students rush to leave the room. This is unsafe as it impedes participant’s ability to cool-down gradually. There is a special section that
immediately follows the cardio, called “Finesse”. In Finesse (Section 8) students are taught a complex kicking combination performed at half tempo. As part of the cooling down process, and keeps students interested and challenged while gradually bringing down their heart rate in a fun environment!

When designing a cool down consider the following factors:
- Promote the benefits of kickboxing
- Be aware of body alignment, monitor the room and provide correction if necessary
- Create a comfortable environment
- Praise participants for their ability to finish the class
- Praise participants for making modification so that the work-out suited their level of fitness
- Connect on a personal level – get to know your students

New participants often feel awkward when kicking. Some are discouraged by their own lack of flexibility. This is due in part to the novelty of the activity. Remember what it felt like the first time you rode a bike without training wheels. This awkward stage will diminish once participants begin to master body alignment and improve flexibility. The height of the kick is not important! Stress the importance of proper posture, form and control. Lead by example. Offer lower targets. Suggest participants aim for knee or hip height targets as opposed to head height targets. There are many factors that influence individual flexibility.

FACTORS THAT INFLUENCE FLEXIBILITY
- Genetic connective tissue structure – How we are “put together”
- Tight or torn ligaments
- Stress or muscular tension
- Injury, pregnancy, or age
- Body temperature
- Mode of flexibility training – What you do to increase flexibility

**COMBAT BREATHING**

As fitness professionals, we know the importance of proper breathing. What is “proper breathing”? How many times have you heard an instructor say, “Don’t forget to breathe!” How could a person forget to breathe you ask? It’s simple. When people are tense or uncertain, it causes them to hold, or restrict, their breathing. Movement becomes distorted as the shoulders raise and muscles tighten. This can produce light-headedness, nausea, fainting, cramps, and an assortment of uncomfortable side effects. Most training teaches us to inhale from the abdomen through the nose, and to exhale slowly through the mouth as the most effective breathing method. Traditional breathing methods emphasize inhaling and a slow release of the breath through the nose.
When executing upper body movement, the muscles of the neck and shoulders should be relaxed. Exhaling helps to relax these muscles. When teaching Turbo Kick, stress the importance of a forceful exhale upon exertion, i.e., kick, punch, knee. This technique allows for greater intensity while at the same time reducing the likelihood of injury.

Turbo Kick combinations are repetitive to provide students with the feeling of success. This format does not require constant cueing for each move, as is the case with formats such as step or low impact. Pattern cueing is minimal, but motivational cueing is abundant! As instructors, most of us have the power of the microphone to motivate! A great tool for motivation is simply a breathing technique we call “combat breathing”. With this technique the instructor emphasizes a forceful exhale upon execution by emitting a short puffing or breathing sound into the microphone and reminds your students to do the same. The louder and more forceful you breathe, the more intense their movement becomes. Encourage them to join you. As you speed up your breath, they will speed up their movement. As you breathe with more force, they will use more power. This is an effective way to get your participants to understand what it means to breathe.

**Flexibility and Stretching**

There has been controversy over which flexibility exercises are best, whether to stretch pre or post exercise and what mode of training to use. Despite this debate and both conclusive and inconclusive research conducted to date, most fitness professionals agree that the principles of stretching should be a part of every fitness program. Most experts agree that stretching should be performed both before and after exercise but for different reasons and with different technique. As discussed earlier, the stretching during the warm-up phase of your class should be aimed preparing for the activity and increasing blood flow to muscles and tissues.

**FORM & TECHNIQUE**

There are many different styles and traditions of martial arts. Most traditional forms of martial arts incorporate the lower body and the upper body for offensive moves such as kicks, elbows, knees, punches, etc. Boxing, however, just uses the upper body, i.e. punching. These two styles can be very different. Turbo Kick takes the traditional upper body style of boxing and modifies the traditional posture of a boxer. Picture a professional boxer. The image that comes to mind is someone standing in the ring with his/her shoulders slightly rounded forward and trapezius muscles elevated, not exactly ideal posture. Avoid the temptation to round the shoulder. Instead, pull the scapulae together and stand up tall. Turbo Kick combines the punching style of boxing with the lower body movement from martial arts such as Taekwondo and modifies these movements to suit the group exercise forum. Many kicks and punches are executed differently in a classroom setting where essentially the student is shadow boxing vs. how they might be executed if the individual was actually making contact.

**INSTRUCTOR IMPROVEMENT**

Martial artists call themselves such only after years of training. Even after one has earned a black belt, there is more to learn. Turbo Kick expects that you will work to continue skill improvement. It is virtually
impossible to acquire the experience you need in one day. While the training process will teach you the skills, it takes time, practice and experience to master the format. Working with a trained kick boxer, martial artists, or taking Turbo Kick classes will help you acquire the skills specific to this format. However, what you learn in a studio may not transfer to the group exercise setting.

**PRACTICE MAKES PERFECT**
Practice does make perfect. Be open minded and confident to realize that regardless of your skill, background or credentials, you still have more to learn. The more time you spend perfecting your craft, the greater your abilities and confidence will become. Determine the areas you need more practice. Focus and seek additional training. Whether it is with use of the music, your vocal inflection or kicking execution, consider yourself a work in progress and commit to improving your skill.

Once you've mastered the form and technique of this class, seek out professional evaluation. As with any format you teach, over time bad habits develop. Even the most skilled kick boxer may develop habits that translate into improper form. Throwing punches with open hands, excessive forward flexion, sloppy kicks and bad posture are just some of the practices that could result in an injury. For this reason, Turbo Kick instructors are required to periodically renew their commitment to form and technique. The importance of proper form and modifications include:

- Injury prevention
- Credibility
- Professional responsibility
- Consistency
- Efficiency

**RECOMMENDED MODIFICATIONS**
Kicks, punches, and blocks, are modified for group classes because of the high number of repetitions.

Modified the following:

1. **Punches**
   a. Stop short of full extension.
   b. Be careful not to snap or lock the elbows.

2. **Kicks**
   a. Use slower tempo and ample time to recover between kicks.
   b. Avoid “snapping up” front push kicks. Instead, use a pushing motion.
   c. Crescent knee instead of kick or a knee before single crescent kick.
   d. Modified round house requires less pivot and allows closed hip placement.
   e. Turbo Kick has replaced the back kick with a modified side push kick for safety reasons. The modified kick is directed toward the back of the room. Body alignment, foot placement, and execution is identical to a side push kick.
The Fist

Assume your students do not know how to make a fist. Many have never been taught the proper technique. Always demonstrate excellent technique and refrain from bad habits or “sloppiness” such as opening the hands when throwing punches, flicking the wrists or lifting thumbs or pinkies. These things are fine for boxers but only confuse students and promote bad form.

Technique
1. Start with open palms facing each other.
2. Slowly close the fist by rolling down one knuckle joint at a time.
3. Thumbs wrap outside of the closed fist and rest light on the index and middle finger.
4. Avoid over clenching the fists. Remind participants that fists are completely closed, but not tightly clenched. They should not be able to feel their fingernails, long or short.
5. Flatten the top of your fists to create a smooth, flat surface.

READY STANCE

Cueing
Sometimes referred to as the ready position, fighting stance, or defensive position. Turbo Kick refers to this position as the “ready stance”. The hand position used in the Turbo Kick program resembles that used by boxers and not necessarily student of martial arts.

Technique
1. Feet slightly wider than shoulder width apart, knees bent, core tight.
2. Step back slightly with one foot, raise the back heel. The allows for ease of pivot.
3. The back foot may turn out slightly depending on each person.
4. Flex the spine slightly and tighten the abdominals. Keep the torso upright and avoid rounding the shoulders. Provides trunk stability and control.
5. Hips are pulled under you but do not lean or flex forward.
6. Position hands near cheekbones to protect the face. Arms in a straight line vertically, elbows pointing down. This is your “GUARD.”
7. Shoulders away from the ears, tall posture, knuckles face each other.
8. Knees soft and feet light. Weight primarily on the balls of the feet and evenly distributed left to right.
9. When punching, be careful not to let elbows lift up. No Wings!

COMMON MISTAKES
- “Wings” caused by lifting the elbows and letting the knuckles to come together.
- Stance too narrow. A wider stance provides increased balance.
- Knuckles facing you instead of each other
- Holding fists and elbows too close to each other
- Bad posture, by rounding the shoulders up or flexing forward
- Allowing fists to drop below the center of the chest

THE JAB

Cueing
The jab is a punch thrown from the lead arm, or the arm of your front leg. Imagine your target as the front of an opponent’s face. Always use the power of your entire body. Using just your arms will not only limit your intensity, but could injure to the elbow from repeated hyperextension.

Technique
1. Feet should be in ready stance.
2. Push weight forward from back foot while turning shoulders and extending arm.
3. Palm faces down at extension as breath is released. (Avoid snapping the elbow joint)
4. For the purpose of exercise, encourage participants to use about 90% of their actual “reach” or extension. This will help control movement and discourage hyperextension.
5. Return to guard with control and focus.

COMMON MISTAKES
- Lifting the elbows when punching
• Fully extending elbows
• Failing to turn knuckles face down
• Not returning to guard fast enough, i.e. choppy movement which makes the punch appear as though it were executed in two parts as opposed to one fluid, rapid movement.

THE CROSS

Cueing
This move uses much more momentum than the Jab, making it more powerful and more effective. The cross is thrown with the back arm and requires the back leg to pivot and rotation of the trunk and hips, thus creating more force and power.

Technique
1. Start in ready stance
2. Using the opposite arm from the jab, push weight forward, with back foot turning shoulders in opposite direction from the jab, rotate hip forward and follow through with the extended arm.
3. Palm faces down at extension.
4. Do not hyperextend the elbow.
5. Return to guard position.

COMMON MISTAKES
• Failing to pivot
• Dropping the opposite hand
• Failing to use the power of the hips and following through with the hand
• Lifting the elbow out to the side, as opposed to letting it move forward naturally
THE HOOK

Cueing
Your imaginary target is the side of your opponent’s face or head. Imagine sliding your arm at a 90-degree angle across a flat surface at chin height. Power comes for the hip rotation.

Hook in Ready Stance

Hook in Modified Horse Stance

Technique
1. Start in ready stance. Use power from the legs for the hook.
2. Start pivot on the foot of the same side as the punch.
3. Imagine squashing a bug with your foot, pivoting inward and outward as you rotate to punch.
4. Lead with the hips and the shoulder, allowing the fist to follow through naturally.
5. Continue rotating the hips and torso until your naval faces the adjacent wall.
6. Your fist finishes at the center of your chest. Chest is fully rotate to the adjacent wall.
7. Keep arm at a 90-degree angle (as if you had to punch around a pole) and imagine your arm sliding along a ledge.
8. Knuckles face down. The arm is controlled and scapula neutral position. Eyes focused on your imaginary target.
COMMON MISTAKES

- Failure to adequately rotate the hips or to pivot on the ball of the foot.
- No follow through.
- Winding up or extra unnecessary movement.
- Stopping the punch too short.
- Shortening the angle at the elbow to less than 90 degrees.

THE UPPERCUT

**Cueing**
Target is the opponent’s chin or abdomen for an uppercut to the body. Think of lifting up, out and away instead of scooping toward yourself. Use the power of your hips and legs to force energy upward, while keeping the shoulder stable.

**Technique**
1. Start in ready stance.
2. Shift weight predominately into the same leg.
3. Drop your fist and the shoulder of the punching arm to the center of your chest.
4. The shoulders and arm of the opposite arm remain in the guard position.
5. Lift entire body upward, following through with the hips and punch up, out and away.
6. Imagine the distance from you that someone would be standing
7. Return to guard.

COMMON MISTAKES
- Scooping toward you as opposed to punching in an upward motion
- Failing to use the hips to rotate and push up as you

THE STRIKE

 Strikes are an element of the “knee” category. For Turbo Kick a “knee” is a knee. The difference between a strike and a “dig” is simply the involvement of the upper body. The lower body mechanics are nearly identical. A strike is considered an offensive movement. Due to the upper body involvement, strikes require more physical energy and therefore caloric expenditure.

Cueing
Imagine grabbing an opponent twice your size and pulling them toward you as you strike them with your knee. As you pull down with force, imagine breaking a stick over your knee.

Technique
1. Extended arms, as if you were grasping your opponent’s shoulders or neck
2. Stabilize the core and tightly contract the gluteals of the supporting leg.
3. Pull arms down with force, as if to strike the face of your opponent on your knee.
4. Energy comes from pushing the hips forward, not leaning back.
5. Avoid leaning back. Maintain a neutral spine with a stable core.

COMMON MISTAKES:
- Leaning back, placing strain on the lumbar spine as opposed to simply contracting the glutes and pushing the hips forward slightly
- Failing to allow the supporting leg to pivot slightly
THE DIG

Digs are also part of the “knee” category. A dig uses the same lower body mechanics as the strike but is often considered a defensive maneuver. The upper body is not used with a dig. Instead, the guard position of the upper body is maintained.

Cueing
Maintain the upper body away from your opponent’s grasp and use the knee and shin to block an incoming kick of an imaginary opponent. The dig does not use the same clinching or upper body movement as a strike. A dig can be used as an offensive move. If coming around your opponent the target is the ribs, or straight ahead the target is the mid-section or groin.

Technique
1. Weight shifts to the standing leg.
2. Abdominals and glut muscles of supporting leg are contracted for balance and stability.
3. Pull the knee upward, extending the hips, striking your opponent in the groin or ribs or imagine using the knee to block an incoming blow.
4. Power comes from pushing hip forward, not pulling the knee up.

COMMON MISTAKES
• Leaning back, placing strain on the lumbar spine as opposed to simply contracting the glutes and pushing the hips forward slightly
• Failing to allow the supporting leg to pivot slightly

MODIFIED CRESCENT KNEE
The crescent knee is a simplified version of the crescent kick. The crescent kick is an advanced skill, difficult to master, requires the participant to have incredible trunk stability. An acceptable modification is the crescent knee. The crescent knee follows the same biomechanical path of the kick but shortens the lever length and decreases the risk of injury.
**Cueing**
Visualize a backhand in tennis. The crescent knee is similar, except performed with the outside of your knee instead of a racquet. Imagine re-directing an incoming kick from an opponent, as if you are sweeping it out of your way.

**Technique**
1. Start by pivoting slightly on the supporting leg. Draw the knee up and across the torso toward the opposite hip.
2. Pushing hips under and forward, extend knee out and across the torso.
3. Return to stance.

**COMMON MISTAKES**
- Sitting back as opposed to pushing the hips forward
- Straightening supporting leg
- Dropping guard
Kicks are an important element of the Turbo Kick experience. They are often the most difficult element for participants to master. Emphasize the importance of form, not height. The psyche of group mentality is such that everyone will try to kick as high as his or her neighbor, regardless of personal skill level. This temptation places participants at risk of injury. Minimize this potential hazard by instructing participants to kick no higher than knee height until flexibility gains can be established. In order to do this effectively, frequently demonstrate kicks at lower heights.

Kicking requires refined abdominal and back stabilization. Sloppy execution could result in lower back injury. Participants with back conditions should be encouraged to keep kicks low.

**Remember:**
- Energy and power comes from the pelvis and hips, NOT the knee. To prevent injury, kicks should never snap. The supporting foot should always pivot open before kicking. Pivoting on the standing foot to open the pelvis and allow for more flexibility is crucial.
- Participants may want to kick high and hard to show skill they have not yet rightfully acquired. It is up to the instructor to remind participants to push hips forward and open the pelvis. Explain that a high kick without control is dangerous and ineffective.
- Keep hands up and relaxed in your guard position. Your guard should always “frame your kick”, i.e. if you kick to the side, your hands or guard should move in the same direction with one arm on either side of the kick.
**MODIFIED FRONT PUSH KICK**

**Cueing**
Imagine pushing your opponent away from you by using the ball of the foot. Think of pushing a door open with the ball of your foot.

[Images showing front and side views of the technique]

**Technique**
1. In a basic stance, begin lifting or chambering the knee toward the chest as you simultaneously pivot outward to approximately 45 degrees on the supporting leg.
2. Push hips forward and while the extending leg pushes out leading with the ball of the foot.
3. Kicks should emphasize the pushing effect and not snapping the knee.
4. For the purposes of Turbo Kick have participants kick with a “relaxed” foot with toes down, as opposed to kicking with the heel.
5. Avoid using a pointed toe or the heel. Using a relaxed foot position will help students master the technique of kicking with the ball of the foot.
6. As in all kicks, ensure guard frames the kick.

**COMMON MISTAKES**
- Snapping the knee
- Kicking with the heel
- Leaning forward or failing to extend the hip of the supporting leg
- Failing to kick straight ahead
- Dropping the leg as opposed to re-chambering the knee and lower the leg
MODIFIED ROUND HOUSE

Cueing
This kick has been modified from an actual roundhouse kick. This kick does not push. Instead, imagine “slapping” your opponent with the top of your shoelaces and the lower shin. While it may look similar to a side push kick, the mechanics and set-up are very different. In a group exercise setting it is not always easy for students to differentiate between a round house and a side push kick. Imagine you had a tire as a target. With a round house you could only slap the tire, as opposed to a push kick, with which you could actually push your foot through the center.

Technique
1. Pivot on the supporting foot.
2. Rotate fully and extended hips forward slightly.
3. Bring extended hip around, while the bent knee points at target with hip flexor extended.
4. Extend leg and pointed toe as you continue to pivot the foot, causing a slapping action with the lower leg.
5. Always allow hips to lead and avoid flexion in the hip flexor.
6. Allow the body to lean slightly in the opposite direction of the kick leg.
7. As in all kicks, ensure guard frames the kick.

COMMON MISTAKES
• Sitting back as opposed to pushing hips forward
• Failing to move your “guard” to protect your ribs
• Failing to pivot on the supporting leg
• Flexing the foot as opposed to pointing the toe
• Pointing toe to the ceiling

SIDE PUSH KICK
The side push kick and the modified round house are both kicks to the side, but with very different execution and technique. Help participants understand the difference by
emphasizing the “pushing” motion of the side push kick and the slapping motion of the round house.

**Cueing**

Imagine using the power from your glutes and abductors to push someone down by kicking through their knee or hip.

![Cueing Image]

*Note: Blading of foot is essential for side kick.*

**Technique**

1. Pull or “chamber” one knee in toward the chest as you pivot on the supporting leg, flexing the hip flexor
2. The foot of the chambered leg should be pointed down slightly
3. Push outward as you lead with the top edge or outer “blade” of your shoe
4. Strike using the blade area of your foot as you exhale forcefully
5. Re-chamber the knee and return to starting position.

**COMMON MISTAKES:**

- Pointing the toes
- Failing to pivot on the supporting leg
- Lifting the leg as opposed to chambering the knee and pushing outward
- Trying to keep the hips open
- Failing to “frame” the kick
MODIFIED BACK PUSH KICK

Some controversy surrounds use of the back kick in the group exercise setting. The back kick is an appropriate and powerful kick in the world of martial arts. However, if not properly modified a back kick in a group fitness setting could raise the potential for injury. For the safety precautions, have participants follow the techniques outlined below.

Cueing
For the purpose of Turbo Kick the modified back kick is essentially a side push kick directed toward one of the back corners of the room. The mechanics are identical. The only difference is your physical orientation. With a side push kick your orientation is front facing. With a modified back push kick your orientation is the adjacent or side wall.

Technique:
1. Look over your shoulder. This is done for accuracy and safety. Ensure guard frames the kick. Aim at 5:00 or 7:00 o’clock as opposed to directly behind you.
2. Pull or “chamber” one knee toward the chest as you pivot on the supporting leg.
3. Push outward as you lead with the heel of the blade of the foot.

COMMON MISTAKES:
• Failing to look before you kick
• Kicking directly behind oneself
• Turning toes upward
THE TURBO TUCK

General description:
The tuck is a posture used to help avoid back injury and isolate abdominal use. This is a modification of the traditional “horse stance” as used in Taekwondo and other martial arts programs. This posture is the foundation of many more of the Elite 11 moves.

Primary muscle group target:
• Waistline, specifically the internal and external obliques
• Additional muscle group use: back muscles like the erector spinae, all ab muscles like the rectus abdominis

To perform:
1. Feet considerably wider than hip distance apart.
2. Feet are turned out with toes pointing to the corners.
3. Knees bent, as if squatting slightly.
4. Hands in “guard” or up near the face with fists closed.
5. Tailbone tucked under you just slightly, abs drawn in and upward.
6. Stabilize the abdominals in this slightly contracted position.
7. Avoid over tightening of the gluts and hamstrings.
8. Avoid leaning forward or slouching.
9. Your back should remain perpendicular, flexion occurs only in the lowest part of your back, i.e. a slight tuck.
THE ZIG ZAG

General description:
A modification of a defensive boxing movement similar to a “slip”. This move isolates the core by flexing side to side as if you were ducking or slipping your body away from an incoming punch. This exercise is used by boxers to build quick reflexes and core strength.

Primary muscle group target:
- abs and thighs, specifically the rectus abdominis and quadriceps and inner thighs
- Additional muscle group use: back muscles like the erector spinae, all ab muscles like the rectus abdominis.

To Perform:
1. Feet considerably wider than hip distance apart.
2. Feet are turned out with toes pointing to the corners.
3. Knees bent, as if squatting slightly.
4. Hands in “guard” or up near the face with fists closed.
5. Tailbone tucked under you slightly, abs drawn in and upward.
6. Alternating bending or flexing the upper body right and left while maintaining slight spinal flexion.

Modification:
Should you feel discomfort in your abs or your back, modify the zig/zag by limiting your bend to a small movement.

Advanced:
Take your stance to a lower squatting position and work to touch the elbows to the thighs with each bend to the side.
THE PUMP

General description:
A dance inspired movement added to simple side steps, which simultaneously work the abs and back

Primary muscle group target:
• Abs and back, specifically the 8 pack or rectus abdominis and erector spinae.

To perform:
1. Modified horse stance
2. Hands in “guard” or up near the face with fists closed.
3. Begin with neutral or natural posture. As you lower or “pump” your guard up and down, contract the abs by flexing the spine (tucking the tailbone tucked under, drawing ribs toward the top of your hip bones). As you lift your “guard” extend the spine slightly.
4. Begin lifting and lower your guard quickly in a “pumping” motion as you simultaneously flex and extend the spine, pushing and releasing the hips.

Modification:
Keep the movement small, or just perform the lower body movement of side stepping.
SHAKE AND SHED

General description:
A dance inspired movement added to simple side steps which simultaneously work the abs and back and arms

Primary muscle group target:
- Abs and back, specifically the obliques, rectus abdominis

To perform:
1. Begin in “tuck” position with hands near the face with fists closed.
2. Begin a small shake of the hips in a circular motion; pulling the hips toward the ribs from left to right just using the lower body. Work to isolate the upper body.
3. Pump the hands up and down, right and left with a small alternating lift/lower. Elbows should lower as the hip is lifted.

Feel free to shake as you please. If you give it too much thought, it just won’t feel right.

Modification:
Keep the movement small, or just perform the lower body movement, avoid using the upper body.
TWIST

General description:
A punch/knee combination, which emphasizes the use of the trunk and legs by lifting, lowering, and twisting.

Primary muscle group target:
• Abs and thighs

To perform:
1. Think of this as a four part exercise: Jab, cross, jab, knee/chamber
2. Begin with your right foot and right shoulder forward
3. Right jab, (twisting or rotating the hips) left cross, right jab – as you pull the fist back to the body from your last jab, draw the right knee in simultaneously (i.e. chamber the knee). Repeat. As you begin with the first jab, step out with the right leg, bending the knee and staying low on your jab, cross, and pulling into a tall lifted position as you chamber the last jab, pulling the knee upward.
4. Emphasize the rotation or twisting motion to get maximum results.

Modification:
Keep the movement upright and avoid lowering down on the first two punches. Advanced: Take your stance very low on the first jab, cross. Lift up onto the toes of the supporting foot as you chamber the jab and knee.
CAPOEIRA STEP (MODIFIED GINGA)

General description:
A move inspired by Capoeira. Banned from fighting and practicing martial arts, Brazilian slaves developed Capoeira as a rhythmic, dancing form of martial arts and acrobatics. By dancing with drums and song as their beat, slaves were able to incorporate and practice martial arts without detection or reprimand of the slave owners. This step incorporates the principals and training benefits of Capoeira without risk of injury. The Capoeira step is a modified version of the “Ginga” step, combined with a “throwing” motion, which will simultaneously work the abs and back, arms and legs.

Primary muscle group target:
• Abs, lats, gluts and hamstrings.

To perform:
1. Begin in “tuck” position with hands near the face with fists closed.
2. Maintain wide stance as you march with small steps; right, left, right, left.
3. Now, with every right march, step straight back. (Avoid crossing back). As you step back, push your weight into the right gluts and hamstrings.
4. Next, as you step forward, sweep both arms across your body and to the right. As you step back with the right, sweep the arms across the body to the left and downward, as if you’ve grabbed someone by the shirt and thrown them to the floor.
5. Create a rowing effect with both arms working together.
6. Work to maintain your “tuck” position and not bend forward.

Modification:
Perform only the lower body movement.
THE ROW

General description: A standing movement, which promotes balance and core strength.

Primary muscle group target:
- Abs, obliques, lats

To perform:
1. Three alternating knee lifts.
2. Lift the knee parallel to the floor or slightly higher.
3. As you lift the knee, contract the gluts of supporting leg and push hips forward slightly.
4. Use the upper body and core, sweeping the arms in a throwing motion across the body and downward toward the lifted knee, almost as if you’re rowing a canoe.
5. Focus on lifting the hip bone toward the rib cage to engage the oblique muscles.

Modification:
Perform a limited amount of rotation as you row.
THE 7 STEP

General description:
A footwork drill inspired by the “Stepping”, a synchronized dance of stomping, clapping, tapping, and dancing practiced and performed primarily in African American fraternities and sororities. This drill will improve foot speed, quickness, and dynamic balance.

Primary muscle group target:
- Lower body, specifically the muscles of the lower leg, calves, tibialis.

To perform:
1. Take 7 marching steps in quick, double time tempo. Lift, hold knee up on the 8th count.
2. As you place the lifted knee back down, repeat 7 quick steps starting on the left lead.
3. Arms simply pump as you would while running up stairs.

Modification:
- Rather than running, lift the heels.

Count 1  Count 2  Count 3  Count 4

Count 5  Count 6  Count 7-8
THE STRIKE

General description:
The strike is an offensive move inspired by Muay Thai boxing where the attacker grabs his opponents by the shoulders drawing him down with force to the blow of his explosive upward knee. In Turbo Kick most all knees are combined with this powerful upper body movement of pulling down with force to take full advantage of the calorie burning potential.

Primary muscle group target:
- Abs, gluts and hips

To perform:
1. Fully extend both arms above your head, reaching toward the sky.
2. Pull the knee upward.
3. As you pull the knee up, simultaneously clench the fists as though you are grabbing someone's shirt, and pull downward toward your knee.
4. Use force as you pull downward, bending the elbows as you pull toward your body.
5. Lift the knee parallel to the floor or slightly higher.
6. As you lift the knee contract the gluts of the supporting leg and push the hips forward slightly.
7. As with all leg or knee lifts, focus on lifting the hip bone toward the rib cage to engage the oblique muscles.
**THE “W”**

**General description:**
The “W” refers to the hand or “guard” position we use in Turbo Kick to increase the upper body toning effect. The “W” is a simple way to improve ab and back strength without even thinking about it.

**Primary muscle group target:**
- Lats, obliques and rhomboids

---

**To perform:**
1. Your hands are in “guard”, i.e fists are closed and comfortably near your chin.
2. Your fists will now allow movement in the direction of your imaginary opponent.
3. Therefore, when you kick to the right, your left arm comes across your chest, fist under your chin. The right fist angles to the right, with the elbow near or behind the right rib cage.
4. This move is named the “w” because as you hold your guard in this position, the arms forms the letter “w.”
THE WHEEL

General description:
A move inspired by Capoeira. This step takes the abdominal sculpting effects of acrobatics without the joint jarring effects. The wheel is simply the beginnings of the “Au” or a Capoeira cartwheel performed from a turned-out squatting position.

Primary muscle group target:
- Obliques, thighs and lats

To perform:
1. Start in “tuck” position with hands up, elbows bent, palms open, as if you were about to do a cartwheel in a room with 5 foot tall ceilings.
2. From this squatting position, toes turned out, hands up, flex or bend from side to side.
3. Work to maintain your “tuck” position.

Modification:
Minimize the degree of flexion you use.

Advanced:
Work to bring your elbows to your thighs.
INJURY PREVENTION AND CARE

The key to preventing injury is proper form and technique, appropriate instruction, balance and common sense. As fitness professionals you may routinely be asked by students to diagnose a pain or symptom. Never attempt to diagnose an injury. You have an ethical obligation to explain that you are not a trained medical professional and that any persisting injury should be brought to the attention of their physician without delay. Under no circumstances should you engage in a discussion regarding the possible diagnosis of their condition. Doing so places your participant at risk of further injury. Encourage participants to consult their physician.

The best policy is to take preventive measures. Help participants avoid injury by explaining the benefits of modifications and proper technique. When you observe improper or potentially dangerous form, correct it immediately. Allowing it to go unchecked will likely result in an injury or persisting condition. Provide corrections in a discrete, tactful manner. Be careful not to embarrass or demean participants. Discrete behavior such as pulling the microphone away from your mouth to speak personally with someone shows concern and respect. In addition, demonstrate modifications for high impact or advanced movements.

Remember that you do NOT represent the general public. Your personal level of fitness is superior to that of most your participants. It’s our job to be and look fit and exercise regularly. The general public, however, is de-conditioned. You cannot determine the physical condition of someone simply by his or her outward appearance. Even a seemingly slim individual may be de-conditioned. Motivate participants to work within their personal limits. Listed below are several common complaints associated with various forms of kickboxing. Again, we ask you to understand that these are to be used as a means of preventative action, and not to help diagnose injury. You can help prevent injuries simply by correcting improper technique before harmful habits develop.

COMMON COMPLAINTS

Possible Cause of Shoulder Pain
- Using full extension of the arm (avoid locking the elbow).
- Improper warm-up of rotator cuff.
- Improper stabilization of the shoulder girdle or lack of control during punching.
- Use of weights (never use hand held weights, forces are unevenly distributed.)

Possible Cause of Low Back Pain
- Using abductors and hip flexors in the side kick instead of gluts, or not dropping your chest when aiming high.
- Inappropriate forward flexion used during a bob and weave.
- Excessive hip extension during kicks and knees.
- Impact related drills.
- “Leaning back” during kicks and or knees.
- Improper footwear.
- Poor posture including rounded shoulders or leaning forward.
**Possible Cause of Knee or Leg Pain**

- Stepping too wide before kicking, causing excess lateral or medial pressure.
- "Snapping" the knee when extending. Think of pushing instead of snapping. Use gluts to push.
- High impact activity. Offer and demonstrate low/no impact modifications.
- Improper footwear.
- Not allowing the supporting foot to pivot during kicks, or rotational exercise.
- Lack of appropriate warm-up. Stress importance of warm-up and tibialis anterior stretch.

**Possible Cause Hip and Hip Flexor Pain**

- Tight periformis (part of six abductor muscles). Side kicking with the abductors could cause this. A crescent kick could also tighten this muscle because of the hip rotation.
- Overuse or inappropriate form. Stress the importance of cross training.
- Excessive hyperextension of the hip flexor during kicks, knees
Teaching Skills

Make it a party!

MUSIC UTILIZATION

Next to the instructor, music is often the greatest motivator for your participants. Each Round release comes with music that has been formatted for the choreography. The provided Turbo Kick music is not to be duplicated or reproduced under any circumstances. Turbo Kick music is to be used only in Turbo Kick classes and in facilities with appropriate BMI and ASCAP licensing fees and is not appropriate nor to be used in other formats.

REMINDER: Instructors are required to purchase their own Rounds. Those who share copies with other instructors drive up the costs of production and increase costs for other instructors. Any instructor found to have “shared” or “copied” their materials will have Turbo Kick instructor status and benefits suspended.

UNDERSTANDING MUSIC  Magic happens when people hear music that motivates them. They can’t help but move. Most people, whether aware or not, do hear the beat of the music. The beat is defined as the regular pulse of music. There is, however, an “upbeat” and a “down beat”. Movement should start not only on the beat but specifically on the downbeat. In group fitness, beats are organized into 8 per measure. These measures are grouped together to form a musical phrase (4 groups of eight counts or 32 beats in total). A phrase creates a musical “story” with a distinct beginning and ending.

- 8 beats or counts = 1 measure
- 4 measures of 8 counts = 1 phrase
- 1 phrase = 32 beats or counts
To perfect your craft, learn to teach in a way that most effectively uses music and makes your class easy to follow. Finding the downbeat and the top of the eight count may take considerable practice. Don’t be embarrassed or discouraged if you are not able to find it every time. An instructor who does not teach on the downbeat of the eight count will not pose a risk to their students. However, many students will have difficulty following and may not know why. With practice you will become a better instructor. Powder Blue Productions has created a tool for practicing how to count and cue music on the beat, measure and phrase. *Cueology: Cueing 101 CD* can be purchased at [www.turbokick.com](http://www.turbokick.com). Instructors call this “the perfect tool to learn and master the beat, measure, and musical phrase.”

**Why is it important to teach using the 8 count?**

- Students anticipate a change at the top of the eight count.
- The exertion/force of the movement will fit the power of the beat or music.
- It’s easier to follow the instructor.
- It helps instructors to balance unilateral exercises. For example: your drill consists of right jabs and then switches to the other side. Rather than having to count each jab, once you are in tune with the music you will “feel” the top of the phrase and intuitively know that you’ve performed 16 jabs (every other count of 32) on the right and it’s time to switch to the left.

**Why is it important to teach using the 32 count phrase?**

- For the very same reasons which are listed above regarding teaching on the 8 count
- Group exercise music transitions every 32 counts. Therefore, when you teach using the 32 count phrase, your transitions become more natural, easier to follow.
- Emphasizes the powerful interpretation of the music’s energy.

**BEATS PER MINUTE**

Turbo Kick music is recorded at a consistent rate of beats per minute in accordance with the prevailing standard and AFAA guidelines, approximately 138 beats per minute. However, you must carefully monitor your students to know when it is necessary to adjust the pitch (also known as the speed of the music). Consider slowing the tempo or beats per minute of the music during combinations that involve kicks or when you notice students have difficulty executing movement with control. A good instructor will scan the room and closely monitor participant’s range of motion to gauge whether the music should be made slower or quicker. Monitor the form and execution of all of students. Taller individuals need more time to lift the long levers of the legs during kicking. There is no disadvantage to slowing the tempo! A slower tempo allows even advanced students more time to perfect execution and control. Finally, keep in mind that when something is “new” it often seems even faster. Therefore, if you are teaching Turbo Kick to a new group of students, consider slowing the music tempo even more for greater success.
**Turbo Kick TURBO (Section 5)**

Completely unique to Turbo Kick is the Turbo section of the class. A segment of every Turbo Kick class includes a “Turbo” section. This section, designed to happen approximately 30 minutes into the class, is set-off by a sounding siren to get students ready! Turbo lasts approximately one minute and is designed specifically to provide the ultimate anaerobic challenge! The beats per minute in this section will steadily increase for the course of the drill. Due to the increased tempo, it is important that participant’s use about ½ of their normal extension if punching is involved. Kicks are never performed during Turbo. The Turbo section and accompanying music build intensity and excitement amongst participants. A work/recovery section immediately follows this anaerobic drill.

**REMINDER:** It is normal for participants to want to leave the floor and get water, towel off, or take a break once the Turbo section finishes. It is essential that you keep your class moving and participating in the work-recovery section to help reduce their heart rate. Stopping completely after an anaerobic drill is unsafe. Cue students, “Don’t leave the floor yet! Please spend a minute with me recovering!” If participants choose to stand in line at the water fountain, remind them to keep moving while waiting in line.

At the beginning of each class, it is important to coach and encourage de-conditioned students, pregnant participants or anyone who prefers a low impact workout to keep intensity lower during the Turbo section and avoid pushing into the anaerobic zone.

**TEACHING TECHNIQUES**

Teaching Turbo Kick is a blast. There are primarily three methods for teaching the choreography for Turbo Kick.

- **Add-on**
- **Half-tempo**
- **Rehearsal**

**Add-on** technique builds by teaching and learning 8-counts at a time. Then you teach and learn the next 8-counts. From there, add both 8-counts together and practice that section. Next, introduce and learn the third 8-count. Add parts 1-3 together and repeat from the top. Learning one 8-count section at a time and then repeating everything “from the top” really “locks” the choreography sequence for the student.

**Half-tempo:** Using half-tempo slows down the moves but allows you to continue using the music. Instead of giving a move a single count, you can use 2, 4 or 8 counts as you teach a more challenging section. In other words, you move two or more times slower than the final choreography. It still allows a participant to learn the choreography in a chronological fashion but at a slower pace, while maintaining the rhythmic beat and vibe from the music.

**Rehearsal:** Fashioned after traditional dance classes, the rehearsal utilizes the method of “stopping and starting” the choreography while having a constant background beat. Primarily used when teaching new or trick choreography, it helps the participant learn and rehearse a sequence without the constraints of staying on the beat of the music. Your are able to repeat sections until the participants (and you) know them.
**LAYERING**

Each round includes a training program (DVD) that demonstrates the various layers available to the instructor, provides tips to assist with modifications of the material, and, suggests how to build the choreography. Turbo Kick choreography is designed using a concept called “layering.” Layering refers to the design of each section of choreography—wherein each section begins with a simple or base layer. Following the principles of linear progression, each choreography layer begins as a simple one. This combination can be repeated as many times as the instructor deems appropriate. The instructor may add additional moves to this basic layer by adding a pre-choreographed new element or move. Each new element or combination added to the basic layer creates a new layer. It follows that each new layer increases the section’s difficulty. Therefore, when teaching beginner-level participants, the instructor should use the basic layer and repeat it until roughly 80% of the students have mastered the combination. Conversely, when teaching an advanced group, the instructor may add a new layer every 32 counts. Let’s look at sample choreography:

**Section 2: Sample choreography**

Layer 1: Jab, cross, hook, upper cut (perform at tempo)
Layer 2: Jab, cross, hook, upper cut (at tempo) – add two squats
Layer 3: Jab, cross, hook, upper cut (at tempo) – squat/knee, squat knee

In the example above, Layer 1 represents the “basic” layer. Each time a new layer is added, the choreography becomes more challenging. Therefore, a beginner class might need to stick with Layer 1 for the entire section. When teaching an experienced group that prefers advanced choreography, the instructor might add a new layer every 32-count phrase, potentially totaling nearly 11 phrases, i.e. 11 layers per “A” combination of a particular section. When teaching a beginner-level class or a class which prefers less choreography and more drills, the instructor can repeat the basic layer for all 11 phrases or add on as appropriate.

The idea of “layers” allows Turbo Kick to meet the instructor’s needs. Since every class is different, it is the instructor’s obligation to monitor a class and find the perfect balance of success and challenge. Instructors should avoid the temptation to teach all the layers simply because they themselves have mastered them. Additionally, instructors should never feel the material in a particular round is too complicated. Complex layers exist for those who teach students who have mastered the basic layers and need more challenges and motivational demands.

Turbo Kick produces a new round every 8 to 12 weeks. Many instructors begin the first week by teaching the round only with the most basic layer. The next week, adding a layer or two in each section, is dependent upon the ability of the class. This technique is used week after week, adding layers to increase the difficulty of the choreography mastered the previous week. Layering keeps the round fresh and allows instructors to use the same choreography for up to 12 weeks without experiencing “burn-out”.

MODIFICATIONS

Turbo Kick has been designed to provide instructors with the structure their classes need, yet offers flexibility with the health and fitness industry’s demands. Veteran instructors know intuitively how to modify a combination or an exercise to meet the needs of all participants. We encourage instructors to modify any exercise or combination they deem necessary. We ask only that the basic concept and design of the class stay intact. For example, kicking sections should remain kicks; Turbo should include anaerobic work, etc. Following are modification guidelines:

1. **Impact:** Impact exercises are those wherein both feet leave the ground momentarily. Examples: Jumping jacks, plyometrics, jumping rope, hopping with both feet, etc. As some participants may suffer from joint pain, arthritis, obesity, incontinence, and various forms of injury, it is a good idea to offer non-impact variations to these exercises. Instead of simulating jumping rope with both feet leaving the ground, simulate jumping rope by simply lifting the heels.

2. **Kicks:** Kicks require balance, strength, and a degree of flexibility. Regardless of a student’s fitness and/or flexibility, they often attempt to keep up with the instructor’s kicks. This can result in an injury. Occasionally demonstrate how kicks can be modified by keeping the imaginary target at knee height. In addition, by modifying a combination from a kick to a knee, you simplify the material.

3. **Directional changes:** Most combinations use front facing orientation. Occasionally, the advanced layer of a section might introduce a directional change. Orientation changes are difficult for many beginner-level participants. The easiest way to modify a directional change is to simply maintain the combination without changing direction.

4. **Advanced punching combinations:** For the first-time kick boxer, one of the toughest concepts is how to combine the four basic punches into one quick combination, also known as shadow boxing. If new participants struggle with a combination that calls for a jab right, cross left, hook right, uppercut left, simplify the combination. Instead, try “punch right, left, right, left.” This simple modification will teach order first, so participants can build confidence before the instructor introduces other, various punches.

5. **Advanced kicks:** A knee can replace any kick. More advanced combinations might introduce an advanced kick such as an axe kick, crescent kick, or hitch kick. These kicks require considerable skill, flexibility, abdominal and back strength, as well as balance. Suggest that those uncomfortable with the advanced version use a knee or a simplified kick instead.

After several attempts, if the combination doesn’t feel right to you, modify the combination to meet your personal style. Modifications are encouraged, provided they stay true to the original section’s purpose. For example, Section 2, the punching section, can be modified but should not include kicks.

CUEING

Cueing is your “warning system” to alert participants what is coming next. Cueing can be both verbal and visual. If you learn to give directions that are timely and clear, your students will understand what you want AND have time to react to your cues. Turbo Kick is taught in a primarily linear progression style. Therefore, the intricate cueing that is required for other formats such as advanced step, are not necessary. Instead of cueing the “movement”, many instructors make the mistake of over-counting. Continually counting down, “Okay, 8 more, 6 more, 5 more, 4 more” etc. is a cueing technique best reserved for infrequent use and as a motivational technique.
**VERBAL CUEING**

Even with amazing form and outstanding power, you need to develop your verbal cueing skills for success. If participants have difficulty following you, class attendance will suffer and participants will feel frustration.

Verbal cueing sets the tone for a workout. The personality you present through vocal quality should be a bit “tougher” in Turbo Kick than with other types of classes. Since it’s athletic-based, Turbo Kick has an intense aggressive, “urban” feel. As the instructor, you convey this with your body language and your vocal quality.

**Six elements of verbal cueing:** There are several ways to deliver your instructions or cues to your class.

1. **Base Move** – Identify the punch or kick by name, “Jab, cross.”

2. **Footwork** – Indicate proper lead leg, “right leg forward.”

3. **Directional** – indicates what direction they are traveling and where their target is located. For example, avoid saying just “uppercut.” Instead, say, “uppercut, aim for the chin.”

4. **Rhythmic** – A change in tempo from single to double count, etc., “Let’s try it ½ tempo first”.

5. **Description or Imagery** – Describe the movement being performed. Each participant has a different point of reference. Use several different ways to convey the same message. Visualization is another method of verbal cueing that is very effective for many students. These cues will help your students “make the connection”. For example, rather than saying “pivot” consider “drop the knee, lift the heel.” By using variety your message will reach a greater number of participants.

6. **Memory recall** – Once the choreography has been learned, using the names for signature moves is a good example of memory recall. Rather than cueing the entire sequence, cue one or two words whenever possible, i.e. “Twist.” This will help reduce over cueing. You can use the ones provided in the DVD or create your own.

**WHEN TO CUE?**

Unlike other formats where you need to cue 3 to 4 beats early, in kickboxing formats it is often more effective to cue the movement on the count that you execute. The ideal time to cue and give directions to your class is on counts 5-8. Cueing on counts 5-8 takes practice but is probably one of the most important skills an instructor can master. Similar to driving a car, you don’t want to give directions too soon—or too late! Observing instructors who use this skill can show you how successful students can be with ample warning. Powder Blue Productions has created a tool for practicing how to count and cue music on the beat, measure and phrase. **Cueology: Cueing 101 CD** can be purchased at www.turbokick.com.

**VOCAL PITCH**

Pitch refers to the frequency (high pitch or low tone) of vocal quality. Since verbal cueing sets the tone for a workout, your vocal pitch should be several octaves deeper than what you use in everyday conversation. A deeper tone will motivate students and convey power. Many students of group exercise rely on the audible
cues of their instructor as their sole source of motivation. Imagine having a football coach with a high pitched voice. Even with the same physical power and enthusiasm, the team’s experience is less motivating. The same is true for Turbo Kick®. An instructor with a deep powerful voice commands respect and conveys power.

Cueing with a high pitch or conversational vocal quality can happen to anyone and especially new instructors. When you’re nervous, the throat will constrict (laryngeal tension) causing your pitch to climb higher. When this happens, you will project your voice from your throat. To deepen your vocal quality, draw breath from your diaphragm. This is the technique used by professional singers and public speakers. Breathe from deep down in the small of your back, using the diaphragm to push a louder, deeper, more powerful delivery. Failure to use these techniques can result in strain of the vocal chords causing frequent laryngitis and potentially permanent vocal damage.

**VOCAL TEMPO**

Tempo refers to the speed used to deliver verbal cues. A common mistake is to speak too quickly when cueing. Instructors often attempt to deliver too much information, and resort to “speedy” or garbled cueing. Slow your vocal tempo by choosing only necessary words, to ensure each cue serves its purpose. Avoid wasting valuable cueing time with terms such as, “okay, you guys, next we’re going to do jab, cross, hook, upper cut.” The result is a rapid jumble of inaudible words. Instead, say, “jack, cross, hook, up.” When you speak slower, each cue serves a purpose and clearer, quicker directions for your students.

**VOCAL LOUDNESS**

The decibel level of verbal cues is “how loud you are speaking.” When music is blaring, people are moving and you’re wearing a microphone, it’s difficult to hear yourself over the noise. Because of this, many instructors make the mistake of screaming or yelling their cues over the music. Also, in an attempt to be heard, instructors often wear a microphone too close to the mouth. Most microphones have been designed to deliver the highest quality sound when the mouthpiece is approximately 2 inches from your mouth. By pulling the microphone’s head too near your mouth, the sound quality becomes muffled. This bad habit has been nicknamed “eating the mic.” Make a practice of speaking cues in a full, powerful, and deep tone with the microphone a fair distance from your mouth.

Another tip to adding a more motivating style is to use a variety of decibel levels. When the energy is building and the music has reached its peak, capitalize by using a loud deeper voice at a lower decibel. The opposite technique can have a similar impact. It’s true; the best way to get someone’s attention is to whisper. Periodically turn the music volume down and give some great motivating tips in an almost whispery tone: “This is your last chance to really burn some calories!” The most successful motivators incorporate various levels of loudness.

Vocal quality is a learned skill, which you will develop with practical experience. Practice using a loud powerful voice. Videotape yourself teaching a class. Study your vocal quality. Could you lower the tone of your voice? Do you repeatedly use the same cues? Study the vocal quality of instructors you find motivating.

**10 Tip for Verbal Cueing (any format)**

1. Vary loudness.
2. Deepen pitch.
3. Slow the speed of your cues.
4. Avoid yelling or screaming into the microphone.
5. Pull the microphone one to two inches from your mouth.
6. When using a louder tone, move the microphone even further away from your mouth.
8. Turn the music volume down when you need to say something important or to cue a complicated section.
10. Begin cueing upcoming changes on count 5.

**POSITIVE MOTIVATION**

The very nature of kickboxing is aggressive, strong and powerful. Universally, the most powerful form of motivation is praise. Many instructors mistakenly use negative cues to urge better performance such as, “You call that a punch?” or, “How come you guys aren’t getting this?” The cornerstone of the Turbo Kick program is a strong commitment to the positive experience of exercise. We firmly believe in the power of praise. Picking on students, or joking in a negative manner, even if it’s meant tongue-and-cheek can have a detrimental effect. Even if the target of your humor is a good friend or someone you know can “take it”, you may alienate those students who fear they might be your next victim. Find a way of rephrasing negative cues by accentuating the positive and bringing out the best in people. It’s your job to make people feel great about their workout. Ask yourself if the cue you’re about to use serves that purpose?

The human brain has difficulty processing negative information. If someone says, “Don’t scratch your head”, your mind pictures scratching your head and secondly processes the “don’t” part of your command. Students have only a moment to process your cues. Make the process more effective by phrasing cues in the positive. Rather than saying, “Don’t lift your elbows!”, try a positive direction, “Be sure to keep you elbows down.”

Here are some seemingly harmless or negative comments, which can easily be replaced with a positive:

<table>
<thead>
<tr>
<th>NEGATIVE</th>
<th>POSITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Where is everybody?”</td>
<td>“This is great! We’ve really got room to kick today!”</td>
</tr>
<tr>
<td>“What’s wrong with you guys today?”</td>
<td>“I’m going to help you guys get this!”</td>
</tr>
<tr>
<td>“Why are you guys so quiet?”</td>
<td>“Okay every body, let’s make some noise!”</td>
</tr>
<tr>
<td>“You guys look so tired!”</td>
<td>“Where’s your energy today?”</td>
</tr>
<tr>
<td>“How come you guys can’t get this?”</td>
<td>“Find your second wind! Energy comes from the heart!”</td>
</tr>
<tr>
<td>“You call that a punch?”</td>
<td>“Don’t worry… we’re going to practice this until we get it!”</td>
</tr>
<tr>
<td>“Don’t snap the knee”</td>
<td>“Check out Lisa. Now that’s a powerful punch!”</td>
</tr>
<tr>
<td>“Stop using those sloppy arms!”</td>
<td>“Really push through with your kicks!”</td>
</tr>
</tbody>
</table>

**VISUAL CUEING**

Visual cueing is equally important because each student has a different method of learning. Some students are verbal learners, others are almost exclusively visual learners. Visual learners need to see the action performed. A visual learner often stands near the front of the room. They prefer to see the instructor at all times. Visual learners will almost block out verbal cues and instead, watch the instructor for visual cues that tell them what’s coming next. An example of a visual cue is when the instructor points to the left side of the room to encourage participants to move in that direction. A great instructor uses both visual and verbal cues as often as possible.
Elements of visual cueing include:

1. **Directional indication** – Hand signals to indicate a change of direction.

2. **Numerical** – Visual countdown shown with hands.

3. **½ Tempo previews** – Demonstrate the pattern at ½ tempo, to allow class to learn muscle memory. This is a very effective technique to use in Turbo Kick.

**GUIDED VISUALIZATION**

The art of visualization will separate an effective instructor from an ineffective instructor. People learn in a variety of ways. An approach or visualization that works with one student may not with another. For this reason it is important to develop several cues to help your students visualize the activity. Visualization will enhance the intensity of your student’s workout. Say for example, you were to cue, “kick to the front”, the result might be minimal effort. If, however, you say, “I want you to imagine kicking down a locked door to save your child,” you will see far more power and intensity. This is called guided visualization. In addition, in large class settings it is difficult to get to each participant. Cues that help students “self-correct” will save participants from potential injury.

You will develop your own unique cues. Use several variations to make the same point. These cues will help your students “make the connection”. For example if you ask participants to, “pivot the foot”, some will not immediately understand. Consider a variation of the same cue, “twist your foot as if you’re squashing a spider”. By using variety your message will reach a greater number of participants.

**Mirror Image Teaching**

Mirror image teaching refers to the act of facing your class when leading them through their workout. The term “mirror image” is used because the instructor essentially becomes the “mirror image” of participants. Therefore, when the instructor moves left, the class will move right. This technique creates an image like your own reflection in a mirror. Exercise videos are an excellent example of this practice. Instructors who have mastered the teaching fundamentals most often use the technique. This technique requires practice, confidence and a firm grasp of choreography. While the new instructor may want to get comfortable leading group exercise, the veteran instructor should consider this technique not only as an advancement of skills, but also as an addition to the instructional repertoire.

Think about the last time you went to a concert or saw a comedian live on stage. Can you imagine if instead of facing the crowd, the comedian placed mirrors on the stage, faced away from the crowd and did a routine making eye contact only through the mirror? Jokes would be the same, but the interaction, the personal connection would be much diminished. Mirror imaging takes your teaching to the next level. It allows you to monitor students more closely. Even more importantly, mirroring gives participants a sense of connection.
To mirror or not to mirror?
In kickboxing, some combinations are easier learned when the instructor has his/her back to the group. This allows students to easily determine which hand or leg is moving and in what direction. Use your best judgment when mirroring your class. As a general rule of thumb, most of the Turbo Kick warm-up could be performed in the mirror image. Most basic front facing combinations can be performed in the mirror image. Similarly, kicks facing the front and marching with knees are also easily taught in the mirror image.

Attire

Let’s face it; our first impressions are made almost entirely by our appearance. What we wear makes an immediate impression on those who view us. People do judge a book by its cover, at least initially. If this were not true you would probably wear your most comfortable sweat pants to your next job interview. Whether we like it or not, people judge us based upon our overall physical appearance. Nowhere is this truer than the industry of fitness. One important factor of this equation is our attire. How you dress will set the tone and a lasting first impression on your students.

So what’s appropriate and what’s not? That’s a question for you to decide. Ultimately you will select attire based on your body type, the weather, comfort, current styles and your budget. Remember that people will make judgments on your credibility based initially by your appearance. If you are on the cutting edge of education and fitness, then dress the part! Turbo Kick is a program that makes people feel powerful, young, hip and cool. Provide an experience for participants that is exciting and fun! Set the tone with your personal style.

We recommend you consider the following guidelines:
• Select pants that allow you to kick comfortably and don’t restrict movement or stick to you once they are wet with perspiration.
• Outdated clothing gives people the impression that you are probably outdated in your teaching style as well.
• Form fitting clothing, especially of the upper body allows participants to see your body mechanics.
• Consider an athletic or urban style. Leotards over tights convey more of a traditional “aerobic look”.
• When wearing loose fitting shorts, be certain to wear bike shorts underneath
• Traditional “karate” pants are too loose to see biomechanics and give students a false sense of martial arts training
• Boxing gloves, weighted gloves and hand weights are not permitted.

Footwear

Turbo Kick classes can be taught in a high impact or low impact style. Due to the impact and the considerable amount of lateral movement, i.e. boxer’s shuffle, bob and weave, etc. we recommend footwear specifically designed for these activities. The traditional mat or training shoes worn by boxers and kick boxers are made for “the ring” where the floor is covered in a thick cushioning foam core and suspended for additional cushioning. Cross trainers, some aerobic shoes and impact related footwear
such as basketball shoes are ideal. We do not recommend running shoes, as they do not provide adequate ankle stability and support. Many shoe companies have identified the kickboxing population as a viable market and have recently begun producing shoes specifically designed for the rigors of this popular format. Remember, your students will wear what you wear. They look to you for guidance and direction. Set an example and remind students to replace worn shoes often.

**Team Colors**

Turbo Kick’s team colors are powder blue and black. An established color scheme helps fans to quickly identify their favorite team! We believe that creating a strong team image is very important. We encourage you to support your team by wearing these colors whenever possible. As part of the Turbo Kick experience, we strongly encourage you to sport team colors or corresponding attire when teaching with another Turbo Kick professional.

**Team Spirit**

One of the most important aspects and benefits of Turbo Kick is the camaraderie and team spirit that develops. When people exercise and have fun together, it encourages them to come back for more! They feel good when they are dancing up a storm in Turbo Kick and it improves their mood and attitude. Bottom line: Turbo Kick helps people stick to working out because they establish social support, while having a good time.

**Creating the Party**

If you haven’t figured it out yet, Turbo Kick is a challenging cardiovascular workout disguised as a party! People want results but they’re not willing to put in the effort if the workout is boring. **Turbo Kick should be a total experience.** We believe that if people enjoy their workout they’re more likely to return and are inclined to work harder! If someone wanted to simply get a good workout, they could jump on a treadmill. Participants of group exercise like the group environment, social interaction, and excitement of a class. We have an obligation to entertain. Think back on your academic education. Consider for a moment the most interesting and animated teacher or professor you ever had. Most likely this was the class you most enjoyed and may or may not have learned the most. Think about your favorite exercise class? What made it special? Was it because of the music, the choreography, or the room that kept you interested? Perhaps it was a combination of these things. But most likely it was because the instructor knew how to perfectly blend all of these things. Next, ask yourself if you prefer an instructor who is “perfect” or one who really knows how to have fun?

**The answer is always fun!** Remember you are the host/or hostess of the party! You set the tone. You create the excitement! Be yourself, but be yourself times two! With practice you’ll become more confident and realize that it’s you they come to see! Be your best! Let down your guard and deliver a great class. People will work very hard for you when it’s apparent you have planned every detail of your class. Work on your choreography, your knowledge, your physique, your technique, and your cueing and you’ll have a safe and effective class. Make it an experience they won’t forget and can’t wait to experience again. Fun goes a long way!
Frequently Asked Questions

BECOMING A TURBO KICK INSTRUCTOR

So now what? You took the plunge and decided to become trained to teach Turbo Kick. You’re excited about the prospect of helping others get fit! But, what should you do next? Here are some frequently asked questions and their answers.

1. Will I be able to be hired with just a Turbo Kick training? It’s possible. While there is no governing body that oversees fitness dance trainings, most reputable companies require instructors to hold a primary certification in addition to their “specialty instructor training”. (Turbo Kick is considered a specialty or format training.) Often health clubs will hire you with the understanding that you will obtain a primary certification within three months (90 days) of the date of your hire.

2. What are the most commonly recognized primary certifications and how do I get more information? While this is not meant to serve as an endorsement, the two most well known primary group fitness/exercise certifications are:

ACE (American Council on Exercise)  http://www.acefitness.org/  1-800-825-3636

AFAA (Aerobics & Fitness Association of America)  http://www.afaa.com  1-877-968-7263

3. What is the difference between “specialty” training and primary certification? Primary certifications certify you to teach general group exercise classes but do not focus on training you how to teach a specific format. A primary certification will cover basic exercise standards and guidelines for group exercise, as well as, basic anatomy, kinesiology, and exercise science in greater detail than what you might find in a “specialty instructor training.” Most primary certifications require studying ahead of time to prepare for written and/or practical testing as much more science and kinesiology are covered. Many program directors and/or club owners require a nationally recognized primary certification upon hiring a new staff member. CPR certification is required before your primary certificate will be issued.
Specialty instructor trainings focus on one modality, for example, dance, kickboxing or cycling. The majority of the specialty training will focus on the form and technique, proper teaching, cueing, mechanics, and etc. for that one format.

4. Will I need to be CPR trained? Most companies ask their fitness staff to be currently trained in Adult CPR. It is best to acquire a CPR card before you try to get hired at a club. It shows your commitment and readiness to teach. CPR training is offered through many community centers, services and the Red Cross in your area, can be completed in just a few short hours and is relatively inexpensive.

5. Once I’m trained, how do I go about getting classes? Make sure you’re ready first. Set a date by which you plan to be ready. Write your date down on paper and keep yourself on track with weekly goals. Next, practice, practice, and practice some more. Now, contact the group exercise director at the club where you want to teach classes. Explain that you are trained and would like to begin teaching. If there is a need, in most cases, the director will set up an audition with you. Make sure when you go to the audition you bring a resume and photocopies of your current CPR card, certification(s), and specialty training certificate of completion. Don’t be discouraged if on your first call, they don’t have a need for new instructors. Perseverance will pay off. Set a date on your calendar to follow up.

6. What is a typical audition like? There are usually two types of auditions. One is where the director will have you teach a portion of a real class. The other type is where just you and the director go into the group exercise room and you teach to him/her. Normally you teach for just a few minutes and he/she will stop you. Don’t try to be perfect. Instead, be likeable and be yourself. Take an interest in the coordinator. Do your homework. Find out as much as possible about the club, the members, the other instructors, the types of formatting which the club offers and are most popular, etc.

7. What can I expect to make per class? Pay rate range from club to club, city to city, state to state. Depending on the club, number of instructor trainings you have, and teaching experience, you can expect to start somewhere between $15-$20 per class. Starting pay could be as high as $40 per hour and as low as $8.00 an hour. It’s easy to move up the pay scale with proven successful classes, a great attitude, consistency, and current certifications and trainings.

8. Is it possible to make a full time living as a fitness instructor? Yes. However, it is difficult to make a full time salary just teaching classes. Most importantly you should consider teaching a wide variety of formats, several which should be “gentle” on the body, i.e. yoga, mind/body formats, etc. If you decide to add other fitness related jobs like personal training, club management, part time coordinating or presenting to your schedule, then you can easily make a full time salary with a rather flexible schedule.

9. I have no experience. What can I do to make an impression during my audition? Smile! Have lots of energy, passion, and enthusiasm….those are the qualities of a great instructor! It helps to pay attention to your appearance as well. Wear current fitness clothing trends, be well groomed, and prepared. Practice what you plan to teach at your audition several times to the music you plan to use at your audition. Be honest and genuine. Explain, “I don’t yet have experience but I have the right attitude and I’m willing to work on anything you suggest. I would really love the opportunity to prove myself and join your team.”

Relax. Smile. Be warm and inviting. Be all the things that make a good instructor. It’s not easy to be energetic, motivating and outgoing on a grand scale when you meet with someone one on one, but that is...
exactly what your coordinator may be looking for. Find out what is most important to him/her. Is it cutting edge programs? Adherence to exercise guidelines? An instructor with a great attitude? Know your audience before your audition. This is essentially a job interview. And don’t forget that the fitness industry is very small. Sometimes it seems that everyone knows everyone. Never burn a bridge, never gossip or speak negatively of another program or instructor and always conduct yourself with extreme professionalism and your professional life will flourish!

10. How long will it take before I feel confident about my teaching skills?
The first class is often the hardest, then it gets easier and easier and your confidence will continue to grow. Experience really is the key. Make sure other instructors know you’re available to sub their classes. The more time you get on the microphone the better you’ll become. Butterflies and jitters are natural. Train yourself to use these feelings as a source for more energy!

11. How can I learn more about what it means to be a fitness instructor?
Talk to your favorite instructors! They are an excellent resource for you. Most instructors enjoy mentoring new instructors because they never forget what it was like when they started teaching. Talk to group exercise directors as well and attend fitness conferences and workshops in your area. The courses offered at these conventions can be interesting and fun, but the intangibles you leave with are invaluable.
BIBLIOGRAPHY


Larson, Jeffrey, PT, L/ATC, “Kick the Risk”, American Fitness, November/December 1999,

