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A non-competitive martial arts exercise program for health and fitness in the general population

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ABSTRACT

Chyu MC. A non-competitive martial arts exercise program for health and fitness in the general population. *J. Hum. Sport Exerc.* Vol. 5, No. 3, pp. 430-443, 2010. Although traditional martial arts training focuses on defensive and offensive systems of physical techniques for combat, martial arts can be practiced as a physical activity for health and fitness, and are recommended as such by US Centers for Disease Control and Prevention. However, limited information on non-competitive martial arts exercise programs is available in the open literature. Compared with other modalities of exercise, martial arts exercise offers advantages in safety, no equipment required, flexible space requirement, adjustable intensity, comprehensiveness, individuality, exercise when watching television, and higher motivation of adherence. This article introduces a structured, systematic, and comprehensive martial arts exercise program suitable for the general population of different age groups and physical conditions. The curriculum features a non-competitive, non-contact, safe and fun personal/group exercise based on traditional martial arts training, covering a wide spectrum of techniques of hand strikes, kicks, elbow strikes, knee strikes, blocks, their combinations, takedowns/throws, and self-defense, in addition to warm-up and cool-down. The purpose is to provide an easy, safe, cost-effective (virtually no-cost) and user-friendly alternative exercise program to help the general population increase quality daily exercise. **Key words:** ALTERNATIVE EXERCISE, COST-EFFECTIVE, SAFETY, FEASIBILITY, PHYSICAL EDUCATION.



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INTRODUCTION

Although traditional martial arts training focuses on defensive and offensive systems of physical techniques for combat, martial arts have been considered and practiced by some as a physical activity for health and fitness, and are recommended as such by US Centers for Disease Control and Prevention (2009a). This article introduces a structured, systematic, and comprehensive martial arts exercise program suitable for the general population of different age groups and physical conditions. The curriculum features a non-competitive, non-contact, safe and fun personal/group exercise based on traditional martial arts training, covering a wide spectrum of techniques of hand strikes, kicks, elbow strikes, knee strikes, blocks, their combinations, takedowns/throws, and self-defense, in addition to warm-up and cool-down. The purpose is to offer the general population an easy, safe, cost-effective (virtually no-cost) and user-friendly alternative exercise program, in hopes that it might help participants to meet the recommended amount of quality daily exercise (USCDC, 2009b).

Beginners are provided with a curriculum as well as information to learn basic martial arts movements from the ever growing wealth of high-quality, free-viewing videos on the internet, and then to practice exercise routines based on combinations of those basic movements. No purchase is required in order to benefit from this program, and an open-access online journal is particularly chosen to publish this program to allow free accessibility. Special attention is paid to remove barriers that may keep people from adhering to exercise, such as those associated with time, cost, equipment and space requirements, transportation, weather, lack of know-how (not knowing what to do), discomforts with exercising in a group, unavailability of instructor, exercise intensity and difficulty, safety, boringness, etc.

Compared with other modalities of exercise, this martial arts exercise program offers a number of advantages including the following (Chyu & Shen, 2009):

- a) Safety - Martial arts exercise is relatively safe compared to many other sports (Woodward, 2009). Since most of the injuries related to martial arts occur during sparring, safety is further improved in this non-competitive, non-contact exercise program (Winkle, Jason, & Ozmun, 2003). Such arrangement is suitable for children and adults of different ages and genders to exercise in the same group, ideal for family workout at home or physical education classes involving children of different ages in schools.
- b) No equipment required - This martial arts exercise is practiced bare-handed without using any equipment. Even safety gear is not necessary because it does not involve any body contact among the participants.
- c) Flexible space requirement - The present martial arts exercise can be practiced in a limited space, and are suitable not only in a gym, but at home, in a backyard, in an office, hotel room, etc. It also allows a large number of participants to exercise in a class.
- d) Adjustability of intensity - Martial arts exercise allows easy adjustment of the level of intensity. For example, a basic front kick drill can be a low-intensity exercise if executed slowly (about 10 kicks per minute, depending on the individual's physical condition), a moderate-intensity exercise if done faster (about 30 kicks per minute), and a high-intensity exercise at a high frequency (above 60 kicks per minute).

- e) Comprehensive versatility – In the practice of defensive and offensive fighting techniques as well as power, speed, and accuracy, martial arts training involves aerobic, muscle strengthening and bone strengthening exercises, the three types of physical activity for children and adolescents recommended by the US Centers for Disease Control and Prevention (USCDC, 2009a). Martial arts also train for flexibility, endurance, stretch, balance, and coordination.
- f) Individuality - A new trend in physical education classes is a focus on individual fitness activities that overweight/obese children can incorporate into their lives, rather than team sports. The present exercise program facilitates group classes where all participants perform the same drills following the instructor, and children struggling with their weight or having other health conditions can work at their own pace, without the pressures of performing on a team or having to sit on the sidelines.
- g) Exercise when watching television - Television watching is a significant factor associated with childhood overweight/obesity (US Surgeon General, 2009). While it may be difficult to enforce reduction of television viewing in children, it may be easier to allow children reasonable television viewing hours but under the condition of simultaneous exercise. Martial arts is one of a few exercises that can achieve a significant level of intensity while watching television, and may mitigate the deleterious impact of television watching on childhood overweight/obesity, or may even reverse it to become a positive factor, a point to be investigated in future clinical trials. Similar effect may be investigated in adults.
- h) Higher motivation of adherence - Martial arts is a comprehensive exercise involving all body parts. The movements with self-defense or offense functions may be more appealing to participants, particularly children, than repetitive, monotonous exercises such as walking, jogging, weight lifting, etc. Martial arts may enhance participants' interest and motivation to exercise, therefore, improving adherence.

EXISTING WORKS

An extensive literature search revealed limited information on similar programs or curriculums available in the open literature. In fact, nothing was found in the scientific literature. Internet searches (in English language) found hundreds of private martial arts schools indicating on their websites about offering exercise classes based on martial arts; however, the details of their curriculums are not disclosed, and the classes are not free. Although a number of commercial video products (tapes, CDs, DVDs, online, etc.) teach exercises based on martial arts, they are either not free or not as comprehensive as the present program that offers an immense body of possible exercise routines.

FEASIBILITY AND SAFETY

The feasibility and safety of this program have been investigated when it was implemented in three US elementary schools serving urban and rural low-income Hispanic communities located in medically underserved areas with prevalence of childhood overweight/obesity risk (Chyu et al., 2010). This martial arts program was integrated as part of regular physical education curriculum in these elementary schools for three semesters. Physical education (PE) teachers without any martial arts background were first trained for seven hours. The teachers then taught children in kindergarten, first, and second grades (n=531, 5 to 7 years of age) martial arts exercise for 20 minutes during their normal 45-minute PE class time, 5

days per week. The program was well accepted by children, teachers, parents, and school administrators. No injury or adverse event was reported. Heart rate measurement during the PE class using commercial heart rate monitors suggested that this program may be effective in facilitating moderate-to-vigorous physical activity in children's PE class (Chyu et al., 2010).

THE EXERCISE PROGRAM

For all participants:

- A physician should be consulted before engaging in this exercise, particularly for an individual who has existing health problems.
- Participants should understand to use martial arts techniques only to protect oneself and never to hurt another person except when absolutely necessary for self-defense.
- Users are recommended to better understand and learn the martial arts movements through viewing free videos available on the internet. Internet addresses for samples of these free videos are given in [Annex 1](#). As the number of these videos rapidly growing, more can be found by internet keyword search using movement names.

For one person exercising alone:

- The space required for an individual practicing alone basic techniques (strikes, kicks, etc.) without combination is about 3-big-step long. Step length varies with individual. The space required for practicing 2-technique combinations (see [Table 1](#)) is about 4 big steps, and that for 3-technique combinations (see [Table 2](#)) is about 5 big steps, 6 big steps for 4-techniques combinations (see [Table 3](#)), etc.

For group exercise:

- Before beginning, participants should open arms, turn around, and make sure not to touch neighbors.
- Participants then stand at attention, face the instructor, and bow to demonstrate respect. This is repeated at the conclusion of the exercise session.
- No body contact during exercise.
- For children's class, the rules of no body contact and limited use of martial arts should be emphasized repeatedly.
- Group classes should be taught in an environment characterized by respect, discipline, and self-control.
- Instructor should count every move for the group.

Meditation

Before warm-up, spend a few minutes sitting or standing in meditation to clear one's mind of thoughts and worries while focusing on deep breathing. Eyes may be closed or open. The emphasis is on the mind, not the eyes. Repeat meditation after cool down.

Warm-up

Follow the warm-up routine below, or see [Annex 1](#).

1. Push chin against two palms, 8 times.
2. Push back of the head against two hands, 8 times.
3. Right lateral flexion: right hand grabs left elbow behind head; bend upper body right, 8 times. Left lateral flexion: left hand grabs right elbow behind head; bend upper body left, 8 times.
4. Rotate arms to exercise shoulders, 8 forward, 8 backward.
5. Rotate trunk while keeping upper body straight, 8 right, 8 left.
6. Rotate waist, 8 clockwise, 8 counterclockwise.
7. Feet together; put hands on flexed knees then rotate knees in the same direction, 8 clockwise, 8 counterclockwise.
8. Feet apart; put hands on flexed knees then rotate each knee in opposite directions, 8 rotating inward, 8 rotating outward.
9. Low stance with right knee bent and left knee straight; squat low and bounce 8 times. Low stance with left knee bent and right knee straight; squat low and bounce 8 times.
10. Sitting on floor, open legs; right hand grabs left toes; stretch left leg by bending down upper body toward left knee, 8 times. Left hand grabs right toes; stretch right leg by bending down upper body toward right knee, 8 times.
11. Sitting on floor, open legs; right hand grabs right toes; left hand grabs left toes; bend down upper body between two legs as low as possible, 8 times.
12. Sitting on floor, both knees flexed, open knees; pull feet close to groin; bend down upper body between two knees as low as possible, 8 times.

Cool-down

Cool-down can be the same as warm-up above, or see [Annex 1](#).

Ready stance

Left (right) ready stance: Stand straight, two feet together; take a left (right) step; slightly bend both knees; raise left (right) fist to about a forearm's length from the nose with left (right) elbow flexed. Raise right (left) fist to near the chin. Relax.

Martial arts techniques

The following applies to all martial arts techniques presented below:

- Typically 20 repetitions for each technique, but adjustable.
- All techniques can be performed both right and left sides.
- Use the whole body in performing all techniques, instead of punching with only an arm, or kicking with only a foot.
- Breathe out at the strike.
- Yelling at each strike can enhance concentration and class morale.

A. Hand strikes

Apply the following drill sequence to all hand strike techniques in section A except whip fist:

1. Left ready stance; left hand strike, 20 times; right hand strike, 20 times; left and right hand strikes, 20 times.
2. Repeat the other side: right ready stance; right hand strike, 20 times; left hand strikes, 20 times; right and left hand strikes, 20 times.

For example, for punch, the drill sequence is the following:

1. Left ready stance; left punch (jab), 20 times; right punch, 20 times; left and right punches, 20 times.
2. Repeat the other side: right ready stance; right punch (jab), 20 times; left punch, 20 times; right and left punches, 20 times.

Punch (jab)

Straight strike with fist.

Hook punch

Bend elbow at about 90 degrees; swing fist outside-in in a horizontal arc.

Uppercut

Lower fist; swing fist upward in a vertical arc.

Knife hand

1. Outside-in knife hand - Open and pull back palm behind the ear; chop forward by extending arm with palm facing up; strike using the little finger side of the palm's edge.
2. Inside-out knife hand - Open and pull back palm behind the opposite ear; chop forward by extending arm with palm facing down; strike using the little finger side of the palm's edge.

Back fist

1. Horizontal back fist - Pull back fist behind the opposite ear; strike in a horizontal arc with the back (metacarpal) side of the fist while extending the arm.
2. Vertical back fist - Pull back fist behind the opposite ear; strike in a vertical arc with the back (metacarpal) side of the left fist while extending the arm.

Whip fist

Left ready stance, body turns around to the right with simultaneous right horizontal back fist. Repeat starting from right ready stance.

Palm

1. Straight palm strike - Palm strike forward with palm heel.
2. Upward palm strike - Lower palm; strike upward with palm heel (targeting jaw/chin).

B. Kicks

B1. Basic kicks

Apply the following drill sequence to all basic kicks in section B1:

1. Left ready stance; right kick, 20 times.
2. Right ready stance; left kick, 20 times.
3. Left ready stance; right and left kicks, 20 times.

Front kick

Raise knee; kick straight and upward with ball (metatarsophalangeal part) of the sole; retract quickly.

Round kick (roundhouse kick or turning kick)

Turn body inward; swing leg around in a circular motion from outside inward; kick with instep; retract quickly.

Side kick

Turn body; raise knee; kick sideways with the outer (lateral) edge of the heel; retract quickly.

Push kick

Raise knee; kick straight with the sole of the foot; retract quickly.

Crescent kick

1. Outside-in crescent kick - Kick with the inner (medial) side of the foot as the foot draws an outside-in (lateral-to-medial) arc.
2. Inside-out crescent kick - Kick with the outer (lateral) edge of the foot as the foot draws an inside-out (medial-to-lateral) arc.

Back kick

Raise knee; kick backward using heel; look back at the kick; retract quickly.

B2. Step and kick

Add a step before each kick in section B1. Apply the following drill sequence to all step-and-kick techniques in this section except step and back kick:

1. Left ready stance; right step; left kick; 20 times.
2. Right ready stance; left step; right kick; 20 times.
3. Left ready stance; right step; left kick; turn around to the right; right ready stance; left step; right kick; turn around to the left; left ready stance again; repeat 20 times.

For step and back kick:

1. Left ready stance; left step backward; right back kick; 20 times.
2. Right ready stance; right step backward; left back kick; 20 times.
3. Left ready stance; left step backward; right back kick; turn around to the right; right ready stance; right step backward; left back kick; turn around to the left; left ready stance again, repeat 20 times.

B3. Jump kicks

Add jumping to each kick in section B1. Apply the following drill sequence to all jump kicks in this section except jump back kick:

1. Left ready stance; raise right foot; jump and kick with left foot before right foot lands, 20 times.
2. Right ready stance; raise left foot; jump and kick with right foot before left foot lands, 20 times.
3. Left ready stance; raise right foot; jump and kick with left foot before right foot lands; turn around to the right; raise left foot; jump and kick with right foot before left foot lands, repeat 20 times.

For jump back kick:

1. Left ready stance; raise left foot; jump backward and back kick with right foot before left foot lands, 20 times.
2. Right ready stance; raise right foot; jump backward and back kick with left foot before right foot lands, 20 times.
3. Left ready stance; raise left foot; jump backward and back kick with right foot before left foot lands; turn around to the right; right ready stance; raise right foot; jump backward and back kick with left foot before right foot lands, repeat 20 times.

C. Elbow strikes

Apply the same drill sequence as hand strikes in section A to all elbow strike techniques below.

Straight elbow strike

Forward strike using the point of the elbow with elbow fully flexed and the other hand pushing the fist.

Outside-in elbow strike

Pull back fist behind the ear, with elbow fully flexed; swing elbow from outside inward in a horizontal arc, like hook punch.

Inside-out elbow strike

Pull back fist behind the opposite ear, with elbow fully flexed; swing elbow from inside outward in a horizontal arc.

Upward elbow strike

Lower elbow, with elbow fully flexed; elbow strike upward.

Downward elbow strike

Raise elbow, with elbow fully flexed; elbow strike downward.

D. Knee strikes

Apply the same drill sequence as basic kicks in section B1 to the knee strike techniques below.

Upward knee strike

Thrust the knee upward while both hands pulling down.

Round knee strike

Turn body inward; swing knee around in a circular motion from outside inward.

Flying knee

Jump and thrust the knee upward.

E. Combinations of 2 techniques

All hand, kick, elbow and knee techniques introduced above can be practiced in combinations. [Table 1](#) shows some examples of combinations involving two techniques. Note the following:

- a. Each combination represents 8 possible drill sequences. For example, combination punch-hook (PH) can be practiced in the following sequences:
 1. Left ready stance; left punch (P) first; then left hook (H).
 2. Right ready stance; right punch first; then right hook.
 3. Left ready stance; left punch first; then right hook.
 4. Right ready stance; right punch first; then left hook.
 5. Left ready stance; right punch first; then left hook.
 6. Right ready stance; left punch first; then right hook.
 7. Left ready stance; right punch first; then right hook.
 8. Right ready stance; left punch first; then left hook.

- b. Combinations involving knife hand (Kh, such as PKh, FkKh) include 16 (8×2) possible sequences, as Kh represents 2 techniques, outside-in and inside-out knife hands. Same with back fist (Bf), palm (Pm), and crescent kick (Ck).
- c. Combinations involving knee (Kn) include 24 (8×3) possible sequences, as Kn represents 3 techniques. Combinations involving elbow (E) include 40 (8×5) possible sequences, as E represents 5 techniques.

F. Combinations of more techniques

Some examples of combinations involving three and four techniques can be found in [Tables 2](#) and [3](#), respectively. These examples represent only a small portion of possible combinations that can be practiced. There are numerous (virtually endless) other sequences involving more techniques as well as blocking and takedowns/throws. Practicing combinations with more movements in a sequence would result in higher level of exercise intensity. This usually may require a larger exercise space, but can be easily managed if turnarounds are introduced in the sequence.

CONCLUDING REMARKS

A structured, systematic, and comprehensive martial arts exercise program was developed for the general population of different age groups and physical conditions. The curriculum features a non-competitive, non-contact, safe and fun personal/group exercise based on traditional martial arts training. Well controlled research is needed to quantify the long term feasibility, adherence, and health benefits of this program.

Table 1. Examples of two-technique combinations

Combination	Punch [P]	Hook [H]	Uppercut [U]	Knife hand (outside, inside) [Kn]	Back fist (horizontal, vertical) [Bf]	Whip fist [Wf]	Palm (straight, upward) [Pm]	Front kick [Fk]	Round kick [Rk]	Side kick [Sk]	Push kick [Pk]	Crescent kick (outside, inside) [Ck]	Back kick [Bk]	Elbow (5 techniques) [E]	Knee (3 techniques) [Kn]
PP	AB														
PH	A	B													
PU	A		B												
PKh	A			B											
PBf	A				B										
PWf	A					B									
PPm	A						B								
PFk	A							B							
PRk	A								B						
PSk	A									B					
PPk	A										B				
PCK	A											B			
PBk	A												B		
PE	A													B	
PKn	A														B
HP	B	A													
HH		AB													
HU		A	B												
HKh		A		B											
HBf		A			B										
HWf		A				B									
HPm		A					B								
HfK		A						B							
HRk		A							B						
HSk		A								B					
HPk		A									B				
HCK		A										B			
HBk		A											B		
HE		A												B	
HKn		A													B
FkP	B							A							
FkH		B						A							
FkU			B					A							
FkKh				B				A							
FkBf					B			A							
FkWf						B		A							
FkPm							B	A							
FkFk								AB							
FkRk								A	B						
FkSk								A		B					
FkPk								A			B				
FkCk								A				B			
FkBk								A					B		
FkE								A						B	
FkKn								A							B
SkP	B								A						
SkH		B							A						
SkU			B						A						
SkKh				B					A						
SkBf					B				A						
SkWf						B			A						
SkPm							B		A						
SkFk								B	A						
SkRk									B	A					
SkSk										AB					
SkPk									A	B					
SkCk									A		B				
SkBk									A			B			
SkE									A				B		
SkKn									A						B

Table 2. Examples of three-technique combinations

Combination	Punch [P]	Hook [H]	Uppercut [U]	Knife hand (outside, inside) [Kn]	Back fist (horizontal, vertical) [Bf]	Whip fist [Wf]	Palm (straight, upward) [Pm]	Front kick [Fk]	Round kick [Rk]	Side kick [Sk]	Push kick [Pk]	Crescent kick (outside, inside) [Ck]	Back kick [Bk]	Elbow (5 techniques) [E]	Knee (3 techniques) [Kn]
RkPP	BC								A						
RkPH	B	C							A						
RkPU	B		C						A						
RkPKh	B			C					A						
RkPBf	B				C				A						
RkPWf	B					C			A						
RkPPm	B						C		A						
RkPFk	B							C	A						
RkPRk	B								AC						
RkPSk	B								A	C					
RkPPk	B								A		C				
RkPCK	B								A			C			
RkPBk	B								A				C		
RkPE	B								A					C	
RkPKn	B								A						C

Table 3. Examples of four-technique combinations

Combination	Punch [P]	Hook [H]	Uppercut [U]	Knife hand (outside, inside) [Kn]	Back fist (horizontal, vertical) [Bf]	Whip fist [Wf]	Palm (straight, upward) [Pm]	Front kick [Fk]	Round kick [Rk]	Side kick [Sk]	Push kick [Pk]	Crescent kick (outside, inside) [Ck]	Back kick [Bk]	Elbow (5 techniques) [E]	Knee (3 techniques) [Kn]
RkFkPKn	C							B	A						D
RkFkHKn		C						B	A						D
RkFkUKn			C					B	A						D
RkFkKhKn				C				B	A						D
RkFkBfKn					C			B	A						D
RkFkWfKn						C		B	A						D
RkFkPmKn							C	B	A						D
RkFkEKn								B	A					C	D
FkSkPE	C							A		B					D
FkSkHE		C						A		B					D
FkSkUE			C					A		B					D
FkSkKhE				C				A		B					D
FkSkBfE					C			A		B					D
FkSkWfE						C		A		B					D
FkSkPmE							C	A		B					D
FkSkKnE								A		B					D

REFERENCES

1. CHYU MC, FENG D, ESPERAT C, REED DB, BOYLAN M, BORREGO J, BILLINGS L, FLORES D, OCHOA C. Feasibility of martial arts exercise physical education program for children at risk for overweight. *Med Sci Sports Exerc.* 2010; 42(5):355. doi:10.1249/01.MSS.0000386681.82374.33 [Back to text]
2. CHYU MC, SHEN C. Martial Arts: potential alternative exercise for weight control. *ACSM's Certified News, American College of Sport Medicine.* 2009; 19(3). [Back to text]
3. United States Centers for Disease Control and Prevention (CDC), Physical Activity for Everyone, http://www.cdc.gov/physicalactivity/everyone/guidelines/what_counts.html. Accessed November 2009a. [Back to text]
4. United States Centers for Disease Control and Prevention (CDC), How much physical activity do you need? <http://www.cdc.gov/physicalactivity/everyone/guidelines/index.html>. Accessed August 2009b.
5. US Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, Overweight in Children and Adolescents. <http://www.surgeongeneral.gov/topics/obesity/calltoaction/factsheet06.pdf>, accessed November 2009. [Back to text]
6. Winkle JM, Ozmun JC. Martial Arts: An Exciting Addition to the Physical Education Curriculum. *The Journal of Physical Education, Recreation & Dance.* 2003; 74(4):29. [Abstract] [Back to text]
7. Woodward TW. A review of the effects of martial arts practice on health. *WMJ.* 2009; 108(1):40-3. [Full Text] [Back to text]

Annex 1. Internet addresses for free-viewing video samples of martial arts movements

Exercise	Internet address
Warm-up	http://www.monkeysee.com/play/333-martial-arts-kung-fu-lower-body-warmup http://www.monkeysee.com/play/334-martial-arts-kung-fu-mid-body-warmup http://www.monkeysee.com/play/335-martial-arts-kung-fu-upper-body-warmup http://www.monkeysee.com/play/336-martial-arts-kung-fu-stretching-warmup http://www.bing.com/videos/search?q=warm+up+exercises+martial+arts&docid=1088320897168&mid=08CFA3A1E4B1C162FBE208CFA3A1E4B1C162FBE2&FORM=LKVR24# http://www.bing.com/videos/search?q=warm+up+exercises+martial+arts&docid=1077155987800&mid=770F90AB8168D6C5E7F3770F90AB8168D6C5E7F3&FORM=LKVR28# http://www.youtube.com/watch?v=TLyqjMcR0nA http://www.bing.com/videos/search?q=warm%20up%20exercises&docid=1414730351781&mid=30B8B9AAD2DBC852B1EE30B8B9AAD2DBC852B1EE&FORM=LKVR32# http://www.youtube.com/watch?v=HVyNSnpNjM&feature=fvw
Cool-down	http://www.youtube.com/watch?v=Qh85xC0SSys&feature=player_embedded
Ready stance	http://www.youtube.com/watch?v=fOaiDuMPDY8&feature=related http://www.monkeysee.com/play/6521-olympic-taekwondo-fighting-stance-and-foot-work http://www.youtube.com/watch?v=xVKPgn-hYo&feature=related
Hand strikes	
Punch (jab)	http://www.youtube.com/watch?v=DIMyVf1xuEE&feature=related http://www.youtube.com/watch?v=fOaiDuMPDY8&feature=related http://www.youtube.com/watch?v=HmQzm_d4J4&NR=1
Hook punch	http://www.youtube.com/watch?v=HOnsx71oGY&feature=related http://www.youtube.com/watch?v=oKQjZfl9srM&NR=1 http://www.bing.com/videos/watch/video/hook-punch-with-speed-and-power-martial-arts-training-tips/B34BE8F92A761A4631CAB34BE8F92A761A4631CA
Uppercut	http://www.youtube.com/watch?v=qF5Vw7fNhpU&NR=1
Knife hand	http://www.youtube.com/watch?v=al9jigOGQew http://www.youtube.com/watch?v=t2-mPmIsk4o
Back fist	http://www.youtube.com/watch?v=8ARuhVdkHvY http://www.youtube.com/watch?v=C5A2fJsqi5w
Whip fist	http://www.youtube.com/watch?v=87BQ8nINlqM&NR=1 http://www.youtube.com/watch?v=UzWJga9Sss
Palm	http://www.bing.com/videos/watch/video/street-self-defense-palm-eye-

	strikes/00E88B65FEC0F3ADFFFF00E88B65FEC0F3ADFFFF http://www.bing.com/videos/watch/video/self-defense-maximum-power-from-a-palm-strike/D0F7F0C2661E5D43BA87D0F7F0C2661E5D43BA87
Kicks	
Front kick	http://www.youtube.com/watch?v=erZ1YFExgEU&feature=related http://www.youtube.com/watch?v=b9nWwzf0C5E&feature=related
Round kick	http://www.youtube.com/watch?v=v4KERWgpOUk&feature=related http://www.youtube.com/watch?v=dEp6O98epOw&feature=channel http://www.youtube.com/watch?v=oy7LtObEHvk&feature=related http://www.youtube.com/watch?v=A9AfWJSr5kM&NR=1
Side kick	http://www.youtube.com/watch?v=MZWlp21639c http://www.youtube.com/watch?v=s0BhbmNyFr4&feature=related http://www.youtube.com/watch?v=yB-yGNxNEZg&feature=related
Push kick	http://www.youtube.com/watch?v=Si90SDJhX3k&NR=1
Crescent kick	http://www.youtube.com/watch?v=ynxeR0jf_uk&NR=1 http://www.youtube.com/watch?v=RRGqUj3Lt0&feature=related
Back kick	http://www.youtube.com/watch?v=_IN4bcarV50&NR=1 http://www.youtube.com/watch?v=DctorSHn0yo&feature=related
Jump kicks	
Jump front kick	http://www.youtube.com/watch?v=osY1ImRA49c http://www.youtube.com/watch?v=S-bAxv833i4
Jump round kick	http://www.youtube.com/watch?v=9mSDJTiw5g&NR=1 http://www.youtube.com/watch?v=81h8ZcVc7rA http://www.youtube.com/watch?v=MZWlp21639c
Jump side kick	http://www.youtube.com/watch?v=ZxL0LNtuSIQ&feature=channel http://www.youtube.com/watch?v=S-bAxv833i4
Jump push kick	http://www.bing.com/videos/watch/video/tdk-jump-front-kick/C0188B77C8F9BFD3B9DC0188B77C8F9BFD3B9D
Jump crescent kick	http://www.ehow.com/video_2367429_the-jump-inside-crescent-kick.html http://www.bing.com/videos/watch/video/kung-fu-jump-kicks-kung-fu-jump-kicks-jump-inside-crescent-kick/93A33C20459CCE97802993A33C20459CCE978029
Jump back kick	http://www.youtube.com/watch?v=eDZmZVji9xg&NR=1 http://www.youtube.com/watch?v=IhPJRVxV0uU
Elbow strikes	
Straight elbow strike	http://www.youtube.com/watch?v=YmKKUj-AjWQ
Outside-in elbow strike	http://www.youtube.com/watch?v=I60sAhJoXm0&NR=1 http://www.youtube.com/watch?v=QILZ7aXGrIE&NR=1 http://video.google.com/videoplay?docid=-6723817905849256685&ei=79LISrPKyHzlQfS8iuCQ&q=elbow+strike&view=2#
Inside-out elbow strike	http://www.youtube.com/watch?v=H-lfGgZZ9hk&feature=related
Upward elbow strike	http://www.youtube.com/watch?v=Klbhp1BKd6Q&NR=1 http://www.youtube.com/watch?v=oMlcG7ab684&feature=related http://www.youtube.com/watch?v=Be0hESOSn1c&feature=related http://www.youtube.com/watch?v=I-jg7KT60HQ&feature=fvw
Downward elbow strike	http://www.youtube.com/watch?v=gBmAcP1tO-I&NR=1
Knee strikes	
Upward knee strike	http://www.youtube.com/watch?v=sYAJGETUBn4&feature=Playlist&p=36C02A1D60D5DC2F&index=20 http://www.youtube.com/watch?v=UjJP7Z0Tfo&feature=related
Round knee strike	http://www.youtube.com/watch?v=Mh7PTjhPWYk&NR=1
Flying knee	http://www.youtube.com/watch?v=mTGxj6zOzEU&feature=channel http://www.youtube.com/watch?v=foooO_b0OFc&feature=related
Combinations of 2 techniques	
Jab, punch	http://www.youtube.com/watch?v=xVKPgn-hYo&feature=related
Jab, side kick	http://www.youtube.com/watch?v=PvhpPxDTijk&feature=related
Punch, hook	http://www.bing.com/videos/watch/video/hook-punch-with-speed-and-power-martial-arts-training-tips/B34BE8F92A761A4631CAB34BE8F92A761A4631CA
Jab, round kick	http://www.youtube.com/watch?v=ZVWlQRMAMg&feature=channel
Back fist, uppercut	http://www.youtube.com/watch?v=8Jeo5HdqrQU
Front kick, round kick	http://www.youtube.com/watch?v=Q5kxRdlbUFU&feature=fvsv
Round kick, knee	http://www.youtube.com/watch?v=9A4p56OMP3o&feature=related http://www.youtube.com/watch?v=sf_NzcsZxOg&feature=related
Knee, back kick	http://www.youtube.com/watch?v=_9kbGc_SEH4

Side kick, front kick	http://www.youtube.com/watch?v=QXIXkwdnBXI&feature=related
Combinations of 3 techniques	
Jab, punch, hook	http://www.youtube.com/watch?v=lck4RrxA6rc
Jab, punch, front kick	http://www.youtube.com/watch?v=6mHdGJKuvfQ&NR=1
Jab, punch, round kick	http://www.youtube.com/watch?v=vahnoQYgS-k&NR=1
Jab, hook, side kick	http://www.bing.com/videos/watch/video/kickboxing-3-move-combo-techniques-kickboxing-3-move-combos-punch/EA25AD2EAF0A59570D34EA25AD2EAF0A59570D34
Jab, uppercut, round kick	http://www.youtube.com/watch?v=6wAEpYQL45I
Hook, punch, round kick	http://www.youtube.com/watch?v=O60VfJLYIKs&NR=1
Hook, round kick, punch	http://www.youtube.com/watch?v=MB56aT4oGek&feature=fvw
Back fist, side kick, punch	http://www.youtube.com/watch?v=Wx_0DBF7gDg&NR=1
Front kick, jab, punch	http://www.youtube.com/watch?v=9bDGyO8_T3M&NR=1
Front kick, round kick, side kick	http://www.youtube.com/watch?v=qmSTiPdCLpl&NR=1
Round kick, punch, hook	http://www.youtube.com/watch?v=pFnMz1U_MN4&NR=1
Crescent kick (outside), crescent kick (inside), round kick	http://www.youtube.com/watch?v=ynxeR0jf_uk&feature=related
Side kick, punch, round kick	http://www.youtube.com/watch?v=gGhOMWlbzGs
Combinations of 4 techniques	
Jab, punch, hook, round kick	http://www.youtube.com/watch?v=i2OQzhqcVQs&feature=Playlist&p=653EDD4503314403&index=43&playnext=2&playnext_from=PL
Hook, whip fist, front kick, round kick	http://www.youtube.com/watch?v=ugEU_HleSPs&NR=1
Jab, knee, round kick, side kick	http://www.youtube.com/watch?v=FYsHsv3MNOY&feature=related
Jab, punch, hook, uppercut	http://www.youtube.com/watch?v=lck4RrxA6rc
Back fist, hook, punch, round kick	http://www.youtube.com/watch?v=tDykSqdB1A&NR=1
Knee, elbow, round kick, punch	http://www.youtube.com/watch?v=WbswHkxzz8o&NR=1