

Operation Fit Kids Curriculum

It's no secret that poor nutrition and inactivity are putting today's youth at risk of developing life-threatening diseases as they age. According to the American Obesity Association, approximately 30.3% of children (ages 6–11) are overweight (at or above the 85th percentile of Body Mass Index) and 15.3% are obese (at or above the 95th percentile of Body Mass Index). For adolescents (ages 12–19), 30.4% are overweight and 15.5% are obese. The prevalence of obesity has quadrupled over the past 25 years.



Children should be learning about the extreme dangers of being overweight and obese as well as engaging in daily fitness-based activities. What better way to do this than to integrate it into the daily curriculum. The American Council on Exercise® is serious about its initiative to reach out to today's youth. This seven-lesson, free, online Operation FitKids™ curriculum is available for both the 3rd to 5th grade classroom level, as well as the 6th to 8th grade level. Although the lessons and their activities are presented in an independent fashion, you can integrate the lesson concepts into your existing curricula.

Kids in Motion

By the time they reach high school, 64% of children are no longer physically active. Why? If your kids fall within this group, you don't have to sadly shake your head. You can set a good example, be a role model and do the right things so your kids will, too. Get off the couch and get on a bike with your kids. Introduce them to exercise that's fun. Eat healthy. Instead of high-calorie foods and snacks, turn to fruits and other healthy foods. And once you get kids moving in the direction of fitness, chances are they'll keep going for the rest of their lives.

Start 'em Young

Becoming a healthy adult starts with being a healthy child. Many chronic diseases of adulthood have their beginnings in childhood. For example, it is important for kids to build strong bones, so that by the time they're in their 20s, their peak bone density will be higher and their risk of osteoporosis will be decreased.

There are also childhood diseases that can easily be prevented by proper diet and physical activity. Children can suffer from diabetes, obesity, high cholesterol and high blood pressure—these aren't just adult ailments.

An hour of physical activity per day is recommended for children. It is also recommended that screen time (TV and computer time) be limited to two hours per day.

Children who are fit can avoid the above health problems. They also do better in physical-performance tests. They have a stronger self-image, more self-confidence, less anxiety and stress and they demonstrate greater improvement in skill- and health-related fitness.

When you consider the facts, it makes good sense to encourage physical activity when your children are young. Parents, teachers and fitness professionals all have a role to play. Each can help kids think positively about exercise and motivate them to make regular physical activity a lifetime pursuit.



Mom and Dad Are the Best Motivators

As a parent, it's up to you to play the biggest part—bigger than a teacher, more important than a fitness professional. Your children look to you for examples on how to talk, dress, act and lead a physically active—or inactive—life.

Set a good example for your kids. Instead of spending the evening in front of the television, find some activity that will keep you moving. In warm weather, bike outdoors. If it's too cold, get a stationary bike, a treadmill or a trampoline.

And it's never too late or too early to help your kids build strength and endurance. Push-ups and pull-ups are an excellent way to build upper-body strength. Jungle gyms and monkey bars are great for kids because they utilize their own body weight. And they're loads of fun.

Make sure your kids have the proper protective equipment, such as helmets and knee, elbow and wrist pads. Also make sure the athletic equipment they're using is the proper size for them. You wouldn't want to swing a bat as tall as you, so buy equipment to fit each child.

Keep in mind that kids are not always naturally limber and that their muscles may be tight and vulnerable to injury during the growth spurts that occur during the elementary years. Be sure to include stretching as a part of your fitness activities.

Make sure that you concentrate on the positive aspects of exercise. It's a chance for a family to be together, to share good times and have fun. Avoid competition, discipline and embarrassment—things that can turn good times into moments of dread. Praise your children for trying. Encourage their interest in other sports and other activities, which will help them take ownership of their fitness.

It's Really up to You

You can't tell kids that being active is fun. You have to show them. So take your kids hiking, biking, dancing, sledding, swimming and in-line skating. Skip rope or shoot baskets with them.

Plan outings and activities that involve walking, like a trip to the zoo or the park, a nature trail hike or even a walk through the mall. Remember: If you want your kids to be healthy, happy teens and adults, it's up to you to do something about it.

Teaching Kids to Effectively Exercise

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Unlike adults, most kids are not interested in organized or supervised exercise programs. Children prefer activities that are typically considered free play. If you plan to set a regular exercise program for children understand that they do require education and motivation to participate in a regular routine.

Here are a few tips on teaching and motivating children to exercise:

1. **Clear Training Objectives:** If you are organizing a regular routine workout with children, set clear training objectives in a simple to understand manner.
2. **Use concise instruction with precise demonstration:** Show and tell is a simple but effective way to communicate the information.
3. **Attentive Supervision:** Many children lack confidence in their exercise abilities and appreciate adult supervision and encouragement. A qualified instructor can provide great motivation for young exercisers.

4. **Appropriate Assistance:** Strength training is often difficult for young exercisers. Provide a little manual assistance to guide them to a successful exercise experience.
5. **One Task at a Time:** Give children only one task at a time to ensure they do not become confused. This increases the probability they will progress successfully through the exercise session.
6. **Gradual Progression:** Take small steps with young exercisers. Do not introduce a new task until the first one is mastered. Better to have young exercisers learn the correct way to exercise than to un-learn the wrong way.
7. **Positive Reinforcement:** Increase a child's self-confidence and satisfaction with exercise by giving them encouraging comments, personal compliments or a pat on the shoulder. Telling children they are doing a good job is one of the best ways to keep them doing a good job.
8. **Specific Feedback:** Positive reinforcement is much more meaningful when delivered with specific feedback. Giving a reason for your comment increases the value of the statement.
9. **Careful Questioning:** Children may be reluctant to give information that could be useful in selecting the right exercises. Try to ask questions that require more than a yes and no answer.
10. **Pre- and Post-Exercise Dialogue:** Spend some time before and after an exercise session in an enthusiastic conversation with the children. It will give you insight into what makes them tick.

Source: *ACE Youth Fitness Book, 2001*

Pump It Up

Pump It Up... Resistance Training for Today's Youth

By Debi Pillarella, M.Ed.

For decades, the cliché, "resistance training is not for kids" ran through the heads of physical educators, coaches, trainers, and parents alike. The old school of thought was that resistance training would damage the growth plates and retard or stunt children's musculoskeletal development. Nothing could be further from the truth. In fact, according to Wayne Wescott, Ph.D. (*Specialized Strength Training, 2001*) progressive resistance training is the best way to enhance musculoskeletal development in boys and girls. As a matter of fact, a study done by Morris et al. (1997) suggested that strength training has its greatest influence on bone formation during the prepubescent years.

Although there are some companies devoted specifically to making youth sized equipment (e.g., Hoist Fitness, International Youth Fitness, etc.), most facilities and instructors must think creatively and use portable equipment such as bands, tubes, medicine balls and light free weights.

So, if you're looking for resistance exercise ideas for today's youth, read on...

Children 3-5 Years Old

Children at this age will be using their body weight as resistance while enjoying muscle strengthening activities in a game-like environment. Use simple directions coupled with visual demonstration to increase understanding with this age group.

Country Curl-up/Snake in the Grass

Target Muscles: Rectus Abdominus/Erector Spinae

Music Theme: Upbeat Country Music

Game Instructions: Demonstrate and direct the children how to complete safe and effective abdominal curl-ups. Tell them to imagine they're out in the country enjoying a round up with their friends. Tell

them that country music will be playing while they will be doing an exercise called the “Country Curl-up”. Children perform a standard curl-up. When they are within reach of their thighs, they slap the top of their thigh like country cowboys and cowgirls. (See photos below.)



When the music stops, they must roll over and imagine that they are snakes in the country grass. When they are a snake, they will lift their chest off the ground and hiss twice (i.e., cobra exercise) and then lower their chest back to the floor. The palms of their hands will remain in contact with the floor during their snake in the grass exercise. (See photos below.)



Children 6-9 Years Old

Children at this age can begin to use external resistance in addition to their own body weight. Light weights, bands, tubes, and light weight medicine balls are all good choices. Make sure the children can successfully complete the exercises listed below without resistance first. Then teach safe and effective prop use before allowing children to work with them.

Musical Fitness

Target Muscles: Variety

Music: Kid’s Choice (as long as the lyrics are appropriate)

Props: Chairs (one for each child), Light Dumbbells, Long Bands with Handles, Lightweight Medicine Balls

Game Instructions: Prior to playing this game, teach the following exercises:

- **Bicep Curls with Light Dumbbells** – In a standing position, with arms extended at each side, one weight in each hand, and elbows at the waist line, contract the biceps then bend the elbows so the weights move toward the shoulders. (See photo below.)



Hold for two seconds and then slowly return the dumbbells to their starting position. Remember to exhale on the flexion (when bending elbows) phase and inhale on the extension (straightening the elbows) phase.

- **Tricep Extensions with Light Dumbbells** – In a standing position with one hand placed on the seat of the chair while facing the chair, the other hand holding a light dumbbell extended at the side and hips and shoulders facing the floor, begin by bending the elbow so it is pointing toward the ceiling. (See photos below.)



Contract the triceps so the elbow extends and the dumbbell moves toward the rear. (See photo below.)



Hold for two seconds and then slowly return the dumbbell to its starting position. Remember to exhale on the flexion (when bending elbows) phase and inhale on the extension (straightening the elbows) phase.

- **Front Shoulder Raises with Long Bands** – Step on the band so feet are shoulder width apart (a more narrow stance as well as standing with one foot on the band will decrease the difficulty of the exercise). Use each hand to hold the handles with a firm grip. Begin by placing the hands in front of the body, resting on the front of the thighs. (See photo below.)



While keeping wrists straight, contract the front shoulder muscles so the arms move forward and upward. (See photo below.)



Hold for two seconds and then slowly return the band to its starting position. Remember to exhale as the hands are moving upward and inhale as hands are returning to starting position.

- **Toss and Squat** – Using a lightweight medicine ball, complete squats (use a chair seat as a guide to assure children’s hips are behind the knee region) while tossing the ball into the air during the standing phase and catching the ball during the squatting phase. (See photos below.)



Game directions: Have enough chairs so each child gets one. Place a prop atop each chair seat (e.g., weights, medicine ball, etc.). Place an exercise title card on the chair so it is visible (e.g., Bicep Curl, Tricep Extension, etc.). Review all exercises so children will know what to do when they get to that chair. Direct the children to move around the outside of the chairs (e.g., walking, running, hopping, etc.) while the music is playing. When the music stops, they must find a chair and complete that exercise until the music begins playing again (e.g., 15 seconds, 30 seconds, etc.).

Children 10-12 Years Old

Children at this age enjoy setting and achieving goals. They don’t think themes are cool, so you have to be creative when setting up their exercise programs. They also are not miniature adults, so taking adult exercise programs and using them with children just won’t work. Here’s a creative, fun game that can work all the major muscles of the body.

Rolling Dice Fitness

Target Muscles: Variety

Props Needed: Dice, light dumbbells, bands, tubes, and lightweight medicine balls are all good choices. Make sure the children can successfully complete the exercises listed below without resistance first. Then teach safe and effective “prop” use before allowing children to work with them.

Game Set Up: Pre-design a wall chart with six exercises that correspond to the numbers 1-6 (e.g., 1=Curl-ups, 2=Push-ups, 3=Bicep Curls with Light Dumbbells, etc.). Teach the exercises to the children before playing the game.

Game directions: Partner the children and give them a dice. Have them take turns rolling the dice. The number they roll corresponds to an exercise on the “wall chart”. They should complete a designated number (you designate repetition quantity or have children set their own class/personal goals) of repetitions of that exercise (e.g., 12 repetitions of #1 Exercise: Curl-up). One of the partners will be responsible for counting the reps, the other responsible for rolling the dice. Have them take turns so they each get a chance to do each duty.

Kid’s Fitness... What’s a Parent To Do?

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It’s no secret that obesity has taken this country by storm and is a contributing factor to serious health conditions such as heart disease, diabetes, Syndrome X, hypertension and others. What is most upsetting is that this epidemic is seriously affecting our kids. It has been said that this may be the first time parents will out live their children (Food Fight, Dr. Kelly Brownell). Obesity is caused by a combination of over nutrition, inactivity and genetic predisposition. What can be done to protect our children from the terrors of this condition? Since there’s not much that can be done about the genes we’re born with, parents must focus their education and energy on the two elements they can control, eating and activity. This article will focus on the activity side of the equation. Use an Internet search engine or visit your local library to gather information on nutrition for kids. A few great websites are www.ada.com, www.eatright.com, www.nationaldairycouncil.org and www.nutritionforkids.com.

When it comes to fitness, kids are not miniature adults. They have specific physiologic differences that make them unique. Therefore, their fitness programs and activities must be specific to their developmental stage and not just a watered down version of an adult’s. So, what’s a parent to do?

Chronologic age is a difficult marker to use when deciding on fitness activities for kids. Children develop in stages. Some children reach a particular stage earlier than others. Although there are no exact guidelines, this article will give you some great guidelines to use as you keep your kids fit. A wonderful reference on developmental fitness stages is Kid Fitness by Dr. Ken Cooper.

2-5 Years of Age

The Scoop

Kids between the ages of two and five need social, physical, and intellectual interaction and development. These years are called the building block years, as they lay the foundation from which subsequent skills will grow. Free play, exploration, creativity, song and exposure to a variety of experiences is critical. Ever wonder why kids at this age can’t seem to sit still? They’re learning about their bodies and how to control them within the space they live. Instead of restricting this, confining them to a couch with a video playing, or enrolling them in extensive structured activities, channel the energy in a positive way (see below) and watch your young ones soar. They will tire out and eventually need a rest. (Don’t worry.)

What's Hot

- Free play
- Catching objects (beanbags, scarfs, playballs, etc.)
- Rolling objects
- Bouncing a ball
- Kicking a ball
- Tossing/throwing a ball
- Hitting a larger stationary ball (on a T) with a bat
- Jumping
- Running
- Walking (forward, backward, sideways)
- Hopping
- Galloping
- Skipping
- Introduction to swimming/water
- Walking a line (low balance beam)
- Pedaling a bike
- Using imaginative or thematic play
- Following simple directions
- Cooperative games
- Non-competitive relays and sports
- Emphasis on fun and play
- Positive, motivating, encouragement



What's Not

- Restrictive play
- Sitting still for long periods of time
- Overuse of motorized toys (e.g., battery operated jeeps, etc.)
- Competitive team sports
- Emphasis on winning and hard play
- Negative comments, criticizing, comparing skills of children

5-8 Years of Age

The Scoop

At this age, kids are building on the foundations that were created in the previous years and moving on to more complex movements and skills. Moving from hitting a stationary ball to one that is thrown, bouncing a ball with two hands to bouncing it with one, and progressing from a bike with training wheels to one without, are all milestones that are accomplished here. Kids at this age can play longer and harder than those at the earlier stage of development. They can actually follow multi-task directions (e.g., run to the cone, jump up and down three times, then run back to me) and enjoy playing in a group more.

What's Hot

- Bike riding
- Skating
- Scooters
- Skateboarding
- Swimming



- Running around
- Non-competitive sports
- Trying out a wide range of fitness/movement activities (not just those mom and dad like or want them to play)
- Introduction to youth sports (basketball, soccer, baseball,

Physical Education = Strong Bodies, Strong Brains

Once upon a time, exercise was a normal part of every child's life—long walks to and from school, daily physical education classes (or recess), and neighborhood games of tag and dodgeball kept young bodies healthy and strong. Those days can seem like a distant memory as computers and video games have replaced outdoor activities, and there are fewer safe places to play.

And unfortunately, physical education is now viewed as an expendable part of the educational curriculum. Yet there is no question that children need to be physically active to not only stay healthy and reduce their chances of becoming an overweight teen or adult, but to perform optimally in school as well.



Where Have All the P.E. Classes Gone?

With increasing pressures to improve standardized test scores while also reducing budgets, schools across the country have virtually eliminated physical education programs. In fact, as of 2006, only 3.8 percent of elementary schools and 2.1 percent of high schools still offered daily physical education classes. This is particularly discouraging given the growing body of scientific evidence linking regular participation in physical activity with improved academic performance. Here are some recent findings:

- Nearly 250 elementary students given a daily 10-minute activity break increased on-task behavior by an average of 8 percent.
- A U.S. study of nearly 12,000 adolescents revealed that, when compared to their sedentary peers, students who participated in P.E., team sports or played sports with their parents were 20 percent more likely to earn "A's" in math or English.
- The fitness levels of more than 300 middle school students were evaluated and those who were the most fit performed better academically as well.
- An analysis of the standardized fitness and academic test results for nearly 900,000
- 5th, 7th, and 9th graders revealed a strong positive correlation between physical fitness and academic achievement.
- Additional research suggests that, compared to control groups, students who spend more time in school-based physical activity or P.E. (and therefore less time in the classroom), actually maintain or improve their grades and standard achievement test scores.

Like “Miracle-Gro” for the Brain

Dr. John Ratey, a Harvard clinical associate professor of psychiatry, argues that not only is more physical activity essential for reducing the incidence of obesity, but it helps improve kids’ academic performance as well.

“I cannot understate how important regular exercise is in improving the function and performance of the brain . . . [It] stimulates our gray matter to produce Miracle-Gro for the brain,” Ratey writes in his book, *Spark: The Revolutionary New Science of Exercise and the Brain* (2008, Little, Brown). Exercise, Ratey explains, prompts the release of proteins into the bloodstream that increase the production of brain chemicals that improve the connections between existing neurons and helps trigger the formation of new ones. Levels of other neurotransmitters, including dopamine, serotonin and norepinephrine, also are elevated after strenuous exercise, helping to increase focus and induce feelings of calmness. “It’s like taking a little bit of Prozac and a little bit of Ritalin,” says Ratey.

Encouraging Physical Activity is Everyone’s Responsibility

There are some positive signs that support for school-based physical education programs is increasing. Newly introduced legislation seeks to increase the amount of required time allotted for physical activity and recess, and several on-school fitness centers are helping students improve both their grades and overall health. After all, the benefits of physical activity extend well beyond academic performance. In addition to being less likely to be overweight, physically active children also have fewer chronic health problems than kids who are sedentary. They also are better able to meet the demands of daily physical activity and have a stronger self-image and more self-confidence.

When you consider the facts, it makes good sense to encourage physical activity among kids—both in school and at home. Parents, teachers and coaches all have a role to play. Each of us can help kids think positively about exercise and motivate them to make regular physical activity a lifetime pursuit.

Resistance Training for Today’s Youth

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Resistance Training for Children 3-5 Years Old

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When the music stops, they must roll over and imagine that they are snakes in the country grass. When they are a snake, they will lift their chest off the ground and hiss twice (i.e., cobra exercise) and then lower their chest back to the floor. The palms of their hands will remain in contact with the floor during their snake in the grass exercise. (See photos below.)



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Musical Fitness

Target Muscles: Variety

Music: Kid's Choice (as long as the lyrics are appropriate)

Props: Chairs (one for each child), Light Dumbbells, Long Bands with Handles, Lightweight Medicine Balls

Game Instructions: Prior to playing this game, teach the following exercises:

- **Bicep Curls with Light Dumbbells** – In a standing position, with arms extended at each side, one weight in each hand, and elbows at the waist line, contract the biceps then bend the elbows so the weights move toward the shoulders. (See photo below.)
- Hold for two seconds and then slowly return the dumbbells to their starting position. Remember to exhale on the flexion (when bending elbows) phase and inhale on the extension (straightening the elbows) phase.



- **Tricep Extensions with Light Dumbbells** – In a standing position with one hand placed on the seat of the chair while facing the chair, the other hand holding a light dumbbell extended at the side and hips and shoulders facing the floor, begin by bending the elbow so it is pointing toward the ceiling.
- Contract the triceps so the elbow extends and the dumbbell moves toward the rear.

Hold for two seconds and then slowly return the dumbbell to its starting position. Remember to exhale on the flexion (when bending elbows) phase and inhale on the extension (straightening the elbows) phase. (See photos below.)



- **Front Shoulder Raises with Long Bands** – Step on the band so feet are shoulder width apart (a more narrow stance as well as standing with one foot on the band will decrease the difficulty of the exercise). Use each hand to hold the handles with a firm grip. Begin by placing the hands in front of the body, resting on the front of the thighs. (See photo below.)
- While keeping wrists straight, contract the front shoulder muscles so the arms move forward and upward. (See photo below.)

Hold for two seconds and then slowly return the band to its starting position. Remember to exhale as the hands are moving upward and inhale as hands are returning to starting position.



- **Toss and Squat** – Using a lightweight medicine ball, complete squats (use a chair seat as a guide to assure children’s hips are behind the knee region) while tossing the ball into the air during the standing phase and catching the ball during the squatting phase. (See photos below.)



Game directions: Have enough chairs so each child gets one. Place a prop atop each chair seat (e.g., weights, medicine ball, etc.). Place an exercise title card on the chair so it is visible (e.g., Bicep Curl, Tricep Extension, etc.). Review all exercises so children will know what to do when they get to that chair. Direct the children to move around the outside of the chairs (e.g., walking, running, hopping, etc.) while the music is playing. When the music stops, they must find a chair and complete that exercise until the music begins playing again (e.g., 15 seconds, 30 seconds, etc.).

Resistance Training for Children 10-12 Years Old

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Rolling Dice Fitness

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Game Set Up: Pre-design a wall chart with six exercises that correspond to the numbers 1-6 (e.g., 1=Curl-ups, 2=Push-ups, 3=Bicep Curls with Light Dumbbells, etc.). Teach the exercises to the children before playing the game.

Game directions: Partner the children and give them a dice. Have them take turns rolling the dice. The number they roll corresponds to an exercise on the “wall chart”. They should complete a designated number (you designate repetition quantity or have children set their own class/personal goals) of repetitions of that exercise (e.g., 12 repetitions of #1 Exercise: Curl-up). One of the partners will be responsible for counting the reps, the other responsible for rolling the dice. Have them take turns so they each get a chance to do each duty.