



ACSM Information On...

## Selecting and Effectively Using Clothing for Inclement Weather

Just because it's cold and/or storming outside doesn't mean you can't be comfortable while exercising. Just choose clothing that creates your own little microclimate. Layering your clothing can allow you to retain just the right amount of heat and provide just the right amount of ventilation. Take the time to add or remove layers as needed, and you'll stay warm and dry while getting fit at the same time.

### A COMPLETE PHYSICAL ACTIVITY PROGRAM

A well-rounded physical activity program includes aerobic exercise and strength training exercise, but not necessarily in the same session. This blend helps maintain or improve cardiorespiratory and muscular fitness and overall health and function. Regular physical activity will provide more health benefits than sporadic, high intensity workouts, so choose exercises you are likely to enjoy and that you can incorporate into your schedule.

ACSM's physical activity recommendations for healthy adults, updated in 2011, recommend at least 30 minutes of moderate-intensity physical activity (working hard enough to break a sweat, but still able to carry on a conversation) five days per week, or 20 minutes of more vigorous activity three days per week. Combinations of moderate- and vigorous-intensity activity can be performed to meet this recommendation.

Examples of typical aerobic exercises are:

- Walking
- Running
- Stair climbing
- Cycling
- Rowing
- Cross country skiing
- Swimming.

In addition, strength training should be performed a minimum of two days each week, with 8-12 repetitions of 8-10 different exercises that target all major muscle groups. This type of training can be accomplished using body weight, resistance bands, free weights, medicine balls or weight machines.

### BASE LAYER

The inner-most layer should transport moisture away from the skin and disperse it into the air or outer layers where it can evaporate. Because water is a good heat conductor, damp garments draw precious heat away from your body. Even in conditions above freezing, this rapid heat loss can cause a dangerous drop in your body's core temperature.

The best base layer materials are synthetics (polypropylene and polyester), especially if it's very cold or you perspire heavily. These materials are lightweight and have excellent wicking properties, transferring moisture to the surface for evaporation. They will keep you dryer than any other type of material. Merino wool can also be a good choice. It absorbs moisture but feels dry and warm to the touch. Since this is a characteristic of the fibers themselves, repeated washings do not decrease wool's ability to keep you dry. An additional benefit is that wool doesn't absorb oils from perspiration, so it won't host odor-producing bacteria.

The design features of your base layer are important to avoid skin chafing. Gussets



and stretch fabrics allow for ease of movement. Seamless or flat-seam garments lie flat and won't rub your skin. Fit is also important. The garment should fit snugly without constriction. Depending on the use, you may want tops to be long



enough to tuck in, or not ride up when you bend over. Finally, don't forget pockets. A place to store your keys and ID can be very convenient.

#### **MID-LAYER**

The mid-layer provides insulation and continues the transportation of moisture away from the inner layer. Wool and synthetics are well-suited to retaining the warmth generated by your body because the structure of the fibers creates small air spaces that trap molecules of warm air. A quality fleece garment is an excellent choice and will keep its loft and warmth through countless launderings. Depending on the weight of the fleece, it can function as anything from a light base layer, to a super-insulating mid-layer or even outer layer. Fleece also retains much of its insulating property when wet and is quick to dry. Additional features, such as armpit zippers and full-length front zippers, allow venting. As with the base layer, this layer should be snug but not constricting.

#### **OUTER LAYER**

The outer layer protects you from the elements and should allow air to circulate

and excess moisture to escape. For dry conditions, a breathable wind shell or soft shell may be all you need. Soft shells are lightweight garments that provide warmth, breathability and wind resistance without a lot of bulk. A soft shell can replace the traditional combination of an insulating inner layer and a waterproof breathable outer layer in all but the wettest weather. If you expect conditions to be more severe, a waterproof breathable membrane or laminate shell will protect you from wind and rain and allow water vapor to escape. Additionally, factory-applied durable water repellency (DWR) surface treatment will cause water to bead and roll off. Design features such as full seam taping will also increase waterproofing, and armpit zippers are essential for venting.

#### **HEAD, HANDS AND FEET**

Don't forget to protect your extremities with as much care as your core. Sweaty feet lead to blisters, and keeping your hands and head warm go a long way toward maintaining a comfortable temperature.

#### **STAYING ACTIVE PAYS OFF!**

Those who are physically active tend to live longer, healthier lives. Research shows that moderate physical activity – such as 30 minutes a day of brisk walking – significantly contributes to longevity. Even a person with risk factors like high blood pressure, diabetes or even a smoking habit can gain real benefits from incorporating regular physical activity into their daily life.

As many dieters have found, exercise can help you stay on a diet and lose weight. What's more – regular exercise can help lower blood pressure, control blood sugar, improve cholesterol levels and build stronger, denser bones.

#### **THE FIRST STEP**

Before you begin an exercise program, take a fitness test, or substantially increase your level of activity, make sure to answer the following questions. This physical activity readiness questionnaire (PAR-Q) will help determine if you're ready to begin an exercise routine or program.

- Has your doctor ever said that you have a heart condition or that you should participate in physical activity only as recommended by a doctor?
- Do you feel pain in your chest during physical activity?
- In the past month, have you had chest pain when you were not doing physical activity?
- Do you lose your balance from dizziness? Do you ever lose consciousness?
- Do you have a bone or joint problem that could be made worse by a change in your physical activity?
- Is your doctor currently prescribing drugs for your blood pressure or a heart condition?
- Do you know of any reason you should not participate in physical activity?

If you answered yes to one or more questions, if you are over 40 years of age and have recently been inactive, or if you are concerned about your health, consult a physician before taking a fitness test or substantially increasing your physical activity. If you answered no to each question, then it's likely that you can safely begin exercising.

#### **PRIOR TO EXERCISE**

Prior to beginning any exercise program, including the activities depicted in this brochure, individuals should seek medical evaluation and clearance to engage in activity. Not all exercise programs are suitable for everyone, and some programs may result in injury. Activities should be carried out at a pace that is comfortable for the user. Users should discontinue participation in any exercise activity that causes pain or discomfort. In such event, medical consultation should be immediately obtained.



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