How to Choose a Base Layer (Long Underwear)

Want a comfort boost on your next outdoor adventure? Ditch the cotton underwear and the cotton T-shirt and upgrade to a moisture-wicking base layer (also known as a first layer or performance underwear).Wicking underwear can benefit any physically active person—from athletes to construction workers—and is a must for every earnest outdoor explorer, whatever the season. As the next-to-skin layer of any layering system, its role is to move moisture away from your body.

Why Wicking Underwear Beats Cotton

Wicking underwear efficiently transports perspiration away from skin. Dries much faster than conventional cotton underwear. Reduces the risk of dramatic swings in body temperature. In very windy or extremely cold conditions, such advantages are potentially life-saving.

Underwear Comparison Chart

Here's how the primary fabrics used in most moisture-managing underwear stack up:

	Synthetics	**Wool**	**Silk (Treated)**
Leading brands	Capilene/ Patagonia; CoolMax; ExOfficio; Hot Chillys; Marmot; Mountain Hardwear; Power Dry; The North Face; Under Armour.	Ibex; Icebreaker; Patagonia, SmartWool; Teko (socks).	REI.
Moisture management (wicking)	**Excellent** Nonabsorbent fibers (usually polyester) transport moisture away from perspiring skin, spreading it over a large area on the garment's outer surface to speed evaporation.	**Excellent** The inner core of wool fibers absorbs moisture (as much as 36% of its weight), then gradually releases it through evaporation.	**Good** Transports moisture away from skin, though not as rapidly as polyester. Conventional (untreated) silk underwear is absorbent and retains moisture.
Drying time	**Excellent** Dries faster than any fabric on this list.	**Good** While slower to dry than synthetics, wool fibers have an outer sheath that resists water and often feels dry on skin.	**Fair to good** Silk absorbs some moisture and is thus fairly slow to dry.
Temperature regulation	**Fair to good** If breezes arise before it dries, a wearer could get chilled. In hot, humid conditions, faster-drying synthetic layers are usually best.	**Very good** Surprisingly comfortable on warm days; excellent for cool days. Offers more warmth than a synthetic garment of the same thickness.	**Very good (if temperature is low)** As nice as silk feels, people typically find it too warm for vigorous warm-weather activity. Good insulator when it's cool or cold out.
Odor resistance	**Poor to fair** When worn for extended periods, synthetic fabrics readily collect bacteria that cause odors. Best if laundered after every use.	**Excellent** Wool, composed mostly of a protein, is naturally antibacterial, usually for the life of the garment. Can be worn on consecutive days with minimal odor buildup.	**Fair** Best if laundered after every use.
Stretch	**Very good** Above-average elasticity. Retains shape after being stressed.	**Very good** Above-average elasticity. Retains shape after being stressed.	**Good** Moderate elasticity. Usually retains shape after being stressed.
Price	**Good** Moderately priced.	**Expensive** Natural fibers tend to be costly.	**Fair** Borderline expensive.
Suggested uses	* All activities, all conditions. * Best in this group for rainy conditions and for heat and high humidity. * Snug fit best for cold weather, loose fit for warm weather.	* Most activities, most conditions. If paddling or in rainy conditions, faster-drying synthetics are a better option. * Best in this group for cool conditions.	* Moderate cool-weather activities and snowsports. * When stationary (spectator sports) or post-activity lounging indoors.

Fabric Overview

Snthetics

This refers principally to polyester and polyester blends. Some underwear blends use high percentages of nylon (as a means of increasing abrasion resistance), or they add small amounts of spandex or elastin (to enhance stretch). Polyester, though, is the dominant synthetic fiber used in wicking first layers. It's a soft, easy-care fabric with reliable moisture-management attributes.

Additional pros:

- Lightest in this group, abrasion-resistant., wrinkle-resistant., easy care.

Additional cons:

- Odors may build if worn repeatedly on multiday trips, potentially vulnerable to staining. Petroleum-based fiber.

Wool

This almost always refers to merino wool, which is popular due to its soft "ultrafine" fibers. Many people are surprised to learn that lightweight (even "microweight") merino wool creates a terrific all-season base layer.

Additional pros:

- Lightweight merino wool is soft on skin, usually machine-washable, stain- and wrinkle-resistant, natural fiber.

Additional cons:

- Typically available only in darker colors, potentially vulnerable to shrinkage.

Silk (Treated Silk)

Silk underwear is largely a specialty fabric, intended primarily for cool- and cold-weather usage. "Treated" indicates the silk has been chemically modified to enhance wicking (a fabric's capacity for moving perspiration off skin to speed its evaporation). Fans of silk are strongly attracted to its smooth texture.

Additional pros:

- Soft, luxurious texture, thin; adds no bulk and layers well, natural fiber.

Additional cons:

- Some require hand-washing; machine washing may causes shrinkage, may be vulnerable to abrasion and sunlight.

Fabric Weights

Though classified as "underwear," every top in this category is appropriate for use as a stand-alone garment. Microweight and lightweight T-shirts are standard summertime attire for active outdoor types—when hiking, riding, climbing, taking training runs, you name it—and they're excellent for gym workouts. When selecting tops and bottoms for use as base layers (actual *underwear*), anticipate the conditions you'll face when choosing the weight of the fabric. Here are general guidelines:

- Microweight: For mild to cool conditions.
- Lightweight: Cool to moderately cold conditions.
- Midweight: Moderately cold to cold conditions.
- Heavyweight: Cold, frigid or blustery conditions.

Some people get cold easily. If so, consider choosing a heavier fabric. Just avoid overdoing it. If conditions become unexpectedly mild, a mid-weight or heavyweight first layer could feel a touch too toasty during vigorous activity.

Tip: Personally, I always carry a spare micro or lightweight top on my outings. They weigh very little and dry very fast. At the end of a sweaty day I can change out of my "motion" shirt and into my "resting" shirt. This allows me to hand-rinse or air-day my motion shirt in preparation the next day. It's a nice little luxury. If you plan on sleeping in your long underwear, make sure you have two sets, change into your second set right before getting into your sleeping bag this will keep you warmer during the night as this second set will be dryer.

A few words on fit: The warmer the conditions, the looser you want your base layer to be. Snug-fitting base layers keep body-generated warmth close to your skin, boosting comfort in cool conditions. When temperatures heat up, it's best to let your next-to-skin layers hang loose to accommodate lots of air circulation. If a garment's advertising promotes an "athletic fit," figure its fit will be on the snug side.

My practical side chooses synthetics. My indulgent side prefers wool. And my don't-be-an-idiot side says never wear cotton on an outdoor excursion.