



Specialty Medicine Compounding Pharmacy

116 N Lafayette, Suite B
South Lyon, MI 48178

Competent Compounding

Phone: (248) 446-2643
Toll Free: (886) 446-2643
Fax: (248) 486-1906
www.specialty-medicine.com

Susan Gilson, PharmD (cand)

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Micronized Progesterone

Progesterone is a naturally occurring hormone that is involved with various systems within the body. Your doctor may prescribe progesterone supplementation because of aging or for conditions such as dysfunctional bleeding, fertility and pregnancy, and premenstrual syndrome, or as part of a hormone replacement therapy.

In the past, oral formulations of natural progesterone were not typically used due to their poor absorption and rapid metabolism by the body, leading to minimal efficacy. To improve efficacy of progesterone preparations, manufacturers began making synthetic progesterone derivatives, known as progestins. While these synthetic hormones have improved efficacy, they do not provide all of the same biological activities that natural progesterone does and also result in more side effects.

A process known as micronization has significantly improved the bioavailability of natural progesterones. Micronized progesterone remains a natural product, chemically identical to progesterone of ovarian origin. The process of micronization simply reduces the particle size of progesterone, resulting in improved dissolution, which increases the extent of absorption within the body.

Because progesterone does not dissolve in water, oral formulations are typically prepared using gelatin capsules filled with progesterone and oil. Most manufacturers use peanut oil in their formulations, which poses a risk for patients with peanut or nut allergies. Patients, who cannot tolerate these products due to allergies, may be referred to a specialty compounding pharmacy, where a product can be formulated using alternative oils. In addition to eliminating the peanut oil, compounding pharmacies can prepare products based on individual dosing versus manufactured strengths to improve the effectiveness of the product and minimize undesirable side effects.

Sunscreen 101

Warmer weather is finally here and the outdoor activities are back in full swing! We all know what that means. It's time to protect ourselves from the sun's harmful ultraviolet (UV) radiation – especially since the two main types of UV radiation, UVA and UVB, have been linked to skin cancer. We all know we should take the proper precautions to avoid sunburn, premature aging of the skin, and skin cancer. How do we do that, though? Some preventative strategies may include avoiding prolonged exposure to the sun, wearing protective clothing, and using generous applications of sunscreen.

Sunscreens protect the skin by absorbing and/or reflecting UV radiation. We need to consider several factors when selecting a sunscreen, including the Sun Protection Factor (SPF), formulation, and ingredients.

True or false? SPF represents the strength of the sunscreen. Most people would answer "true," but the SPF number does not refer to the product's ability to block UV radiation. It actually refers to the length of time you will be able to stay out in the sun. A product with an SPF of 30 allows you to stay out in the sun 30 times longer than you normally could without burning. For example, if you normally burn in 15 minutes, wearing a sunscreen with an SPF factor of 30 would allow you to stay outside for 450 minutes or 7.5 hours (30 SPF x 15 minutes).

Here are some quick tips to consider when selecting and using sunscreen:

Select a product with an SPF of at least 15.

Select a waterproof sunscreen. Perspiration and exposure to water may shorten the time of effectiveness. A waterproof formula will provide better protection when exposed to sweating, swimming, or toweling off.

Select a broad-spectrum sunscreen, which includes ingredients that protect against both UVA and UVB radiation. Some ingredients such as zinc oxide or titanium dioxide are considered physical barriers, which by themselves provide broad-spectrum protection. See Table 1 for the protection levels of such ingredients.

Apply sunscreen liberally and frequently. To ensure the full effect and provide the most protection, apply sunscreen approximately 20-30 minutes prior to sun exposure and reapply it every 90 minutes.



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Table 1: Sunscreen Ingredient Protection Levels

Sunscreen Ingredient	Amount of UVA Protection	Amount of UVB Protection
Aminobenzoic acid (PABA)	Poor	Excellent
Avobenzone	Excellent	Fair
Cinoxate	Fair	Excellent
Dioxybenzone	Good	Excellent
Ecamsule	Excellent	Fair
Homosalate	Poor	Excellent
Menthyl anthranilate	Good	Excellent
Octocrylene	Fair	Excellent
Octyl methoxycinnamate	Fair	Excellent
Octyl salicylate	Poor	Excellent
Oxybenzone	Good	Excellent
Padimate O	Poor	Excellent
Phenylbenzimidazole	Poor	Excellent
Sulisobenzene	Good	Excellent
Titanium dioxide	Good	Excellent
Trolamine salicylate	Poor	Excellent
Zinc Oxide	Excellent	Excellent

Veterinary Corner: Feline Transdermal Delivery

A spoonful of sugar helps the medicine go down, right? Tell that to a cat owner! Trying to give cats an oral medication can be downright challenging. Compounding pharmacies are able to help overcome this issue and improve compliance by creating alternative dosage forms, which are easier to administer. The most common alternative to oral medications is known as a Pluronic Lecithin Organogel (PLO) formulation. This formulation consists of a gel that is applied to the skin, usually the pinna (inside ear flap) where it is absorbed into systemic circulation.

Although not all medications can be made with this formulation, several popular feline medications are available including methimazole, amitriptyline, prednisone, cisapride, enrofloxacin, metronidazole, diphenhydramine, and clomipramine. Many other medications can be compounded into this formulation. Check with Specialty Medicine Compounding Pharmacy to see if a PLO formulation is an option for your cat.

The demands of modern compounding have led to the creation of pharmacies devoted solely to this art. **Specialty Medicine Compounding Pharmacy** has been serving your community for over seven years. Here we spe-

cialize in bio-identical hormone replacement therapies and veterinary medicine, to name a few. We have all the facilities and equipment needed to make anything from topicals to capsules and sterile injectables. We do not ac-

cept insurance, but do provide claim forms with prescriptions we fill. So, next time a patient wants a compound you're unsure of - we'd be happy to serve them!

