Palforzia (Peanut (*Arachis hypogaea*) Allergen Powder-dnfp)

NEW PRODUCT SLIDESHOW

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Introduction

- **Brand name:** Palforzia
- **Generic name:** Peanut (*Arachis hypogaea*) Allergen Powder-dnfp
- **Pharmacologic class:** Oral immunotherapy
- **Strength and Formulation:** 0.5mg, 1mg, 10mg, 20mg, 100mg; per capsule; 300mg; per sachet; powder for oral administration
- **Manufacturer:** Aimmune Therapeutics
- **How supplied:** Kit (w. caps or sachets)—5, 15, 30
- **Legal Classification:** Rx

Palforzia

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Indication

- For the mitigation of allergic reactions, including anaphylaxis, that may occur with accidental exposure to peanut
- Approved for use in patients with a confirmed diagnosis of **peanut allergy**
- Initial Dose Escalation may be administered to patients aged 4-17 years
- Up-Dosing and Maintenance may be continued in patients 4 years of age and older
- To be used in conjunction with a peanut-avoidant diet

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Limitation of Use

- Not indicated for the emergency treatment of allergic reactions, including anaphylaxis

Dosage and Administration

- <4yrs: not established
- **Do not swallow capsule or inhale powder**
- Open cap(s) or sachet and mix contents with only semisolid food (eg, applesauce, yogurt, pudding); then consume entire mixture
- **≥4yrs**: Administer in 3 sequential phases: *Initial Dose Escalation*, *Up-Dosing*, and *Maintenance*
- For Initial Dose Escalation and the first dose of each new Up-Dosing level, must administer under the supervision of a healthcare professional and observe patients for ≥60mins until suitable for discharge
- See full labeling for schedule of dose modification and product discontinuation

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Dosing Configuration for Initial Dose Escalation (Single Day Dose Escalation)

Dose Level	Total Dose	Dose Configuration
A	0.5mg	One 0.5mg capsule
B	1mg	One 1mg capsule
C	1.5mg	One 0.5mg capsule; One 1mg capsule
D	3mg	Three 1mg capsules
E	6mg	Six 1mg capsules

Initial Dose Escalation supplied as a single card consisting of 5 blisters containing a total of 13 capsules.

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Daily Dosing Configuration for Up-Dosing

Dose Level	Total Daily Dose	Daily Dose Configuration	Dose Duration (weeks)
1	3mg	Three 1mg capsules	2
2	6mg	Six 1mg capsules	2
3	12mg	Two 1mg capsules; One 10mg capsule	2
4	20mg	One 20mg capsule	2
5	40mg	Two 20mg capsules	2
6	80mg	Four 20mg capsules	2
7	120mg	One 20mg capsule; One 100mg capsule	2
8	160mg	Three 20mg capsules; One 100mg capsule	2
9	200mg	Two 100mg capsules	2
10	240mg	Two 20mg capsules; Two 100mg capsules	2
11	300mg	One 300mg sachet	2

Daily Dosing Configuration for Maintenance

Dose Level	Total Daily Dose	Daily Dose Configuration
11	300mg	One 300mg sachet

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Considerations for Special Populations

- **Pregnancy:** may cause anaphylaxis, which can lead to a dangerous decrease in blood pressure resulting in compromised placental perfusion and significant risk to a fetus
  - Pregnancy exposure registry: (833) 246-2566
- **Nursing mothers**: no data available on the presence in human milk
- **Pediatric**: safety and effectiveness not established in patients younger than 4 years old

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Contraindications

- Uncontrolled asthma
- History of eosinophilic esophagitis and other eosinophilic GI disease

Boxed Warnings

- Palforzia can cause **anaphylaxis**, which may be life-threatening and can occur at any time during therapy
- **Prescribe injectable epinephrine**, instruct and train patients on appropriate use, and instruct patients to seek immediate medical care upon its use
- Do not administer to patients with uncontrolled asthma
- Dose modifications may be necessary following an anaphylactic reaction
- Observe patients during and after administration of the Initial Dose Escalation and the first dose of each Up-Dosing level, for at least 60 minutes
- Available only through a restricted program called the **Palforzia REMS (www.PalforziaREMS.com)**

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Palforzia REMS Program

- **Notable requirements include**:
  - **Healthcare providers** must be certified with the program by enrolling
  - **Healthcare settings** must be certified in the program, have on-site access to equipment and personnel trained to manage anaphylaxis, and establish policies and procedures to verify that patients are monitored during and after the Initial Dose Escalation and first dose of each Up-Dosing level

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Palforzia REMS Program

- **Notable requirements include**:
  - **Patients** must be enrolled in the program prior to initiation of treatment and must be informed of the need to have injectable epinephrine available for immediate use at all times, the need for monitoring with the Initial Dose Escalation and first dose of each Up-Dosing level, the need for continued dietary peanut avoidance, and how to recognize the signs and symptoms of anaphylaxis
  - **Pharmacies** must be certified with the program and must only dispense Palforzia to healthcare settings that are certified or to patients who are enrolled depending on the treatment phase

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Warnings/Precautions

- Risk of anaphylaxis (may be fatal)
- Do not initiate if severe or life-threatening anaphylaxis occurred within the previous 60 days
- Compromised lung function
- Severe mast cell disorder
- Cardiovascular disease
- Avoid use in the presence of cofactors (eg, exercise, hot water exposure, intercurrent illness, fasting, menstruation, sleep deprivation); if unavoidable, consider withholding temporarily

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Warnings/Precautions

- Withhold if an acute asthma exacerbation occurs
- Severe asthma, persistently uncontrolled asthma, on long-term systemic corticosteroid therapy: not studied
- Monitor for eosinophillic esophagitis; discontinue if suspected

Interactions

- Avoid concomitant NSAIDs; if unavoidable, consider withholding temporarily
- May not be suitable with drugs that can inhibit or potentiate the effects of epinephrine

Adverse Reactions

- **Most frequent (incidence >5% and at least 5 percentage points greater than that reported in subjects treated with placebo):** abdominal pain, vomiting, nausea, oral pruritus, oral paresthesia, throat irritation, cough, rhinorrhea, sneezing, throat tightness, wheezing, dyspnea, pruritus, urticaria, anaphylactic reaction, ear pruritus

Mechanism of Action

- Palforzia is manufactured from defatted peanut flour
- Each dose meets specifications for quantities of Ara h 1, Ara h 2, and Ara h 6, measured by immunoassay alone or in combination with high performance liquid chromatography

Clinical Trials

- Phase 3 double-blind, placebo-controlled study (NCT02635776) in patients with peanut allergy aged 4-55 years old
- Primary analysis population consisted of 496 patients (372 treated with Palforzia; 124 administered placebo) aged 4-17 years in the intent-to-treat (ITT) population who received at least 1 dose of study treatment
- After Initial Dose Escalation ranging from 0.5mg to 6mg on Day 1 and confirmation of tolerability of the 3mg dose on Day 2, patients underwent Up-Dosing for 20-40 weeks starting at 3mg until the 300mg dose was reached

Clinical Trials

- Up-Dosing period varied for each patient depending on how the dose was tolerated
- Patients then underwent 24-28 weeks of Maintenance immunotherapy with Palforzia 300mg until the end of the study
- At the end of the Maintenance period, patients completed an exit double-blind, placebo-controlled food challenge (DBPCFC) to approximate an accidental exposure to peanut and to assess their ability to tolerate increasing amounts of peanut protein with no more than mild allergic symptoms

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Clinical Trials

- **Primary efficacy end point**: percentage of patients tolerating a single dose of 600mg peanut protein in the exit DBPCFC with no more than mild allergic symptoms after 6 months of Maintenance treatment
- **Secondary end points**: comparisons of the response rates after single doses of 300mg and 1000mg peanut protein as well as a comparison of the maximum severity of symptoms at any challenge dose of peanut protein during the exit DBPCFC

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Clinical Trials

Response Rates at the Exit DBPCFC (ITT Population, 4-17 Years)

Peanut Challenge dose, single dose	300mg	600mg	1000mg
Palforzia (n=372)	76.6%	67.2%	50.3%
Placebo (n=124)	8.1%	4.0%	2.4%
Treatment difference (95% CI)	68.5% (58.6-78.5)	63.2% (53.0-73.3)	47.8% (38.0-57.7)
P-value	<.0001	<.0001	<.0001

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Clinical Trials

- **Completer population**: all patients aged 4-17 years in the ITT population who stayed on treatment and had an evaluable exit DBPCFC (296 Palforzia, 116 placebo)
- In the completer population, the proportion of patients who tolerated single highest doses of 300mg, 600mg, and 1000mg with no more than mild symptoms at the exit DBPCFC were 96.3%, 84.5%, and 63.2%, respectively for Palforzia-treated patients compared with 8.6%, 4.3%, and 2.6% for placebo-treated patients

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New Product Monograph

- For more information view the product monograph available at:

  https://www.empr.com/drug/palforzia/