

**TYMLOS**<sup>®</sup>

(abaloparatide) injection

30-day prefilled pen | 80 mcg daily



# BONE REBUILDING IN ACTION

TYMLOS: A remodeling anabolic for your high-risk patients with osteoporosis.<sup>1</sup>

## INDICATIONS AND IMPORTANT SAFETY INFORMATION

### INDICATIONS AND USAGE

TYMLOS is indicated for the:

- treatment of postmenopausal women with osteoporosis at high risk for fracture (defined as a history of osteoporotic fracture or multiple risk factors for fracture), or patients who have failed or are intolerant to other available osteoporosis therapy. In postmenopausal women with osteoporosis, TYMLOS reduces the risk of vertebral fractures and nonvertebral fractures.
- treatment to increase bone density in men with osteoporosis at high risk for fracture (defined as a history of osteoporotic fracture or multiple risk factors for fracture), or patients who have failed or are intolerant to other available osteoporosis therapy.

**Contraindications:** TYMLOS is contraindicated in patients with a history of systemic hypersensitivity to abaloparatide or to any component of the product formulation. Reactions have included anaphylaxis, dyspnea, and urticaria.

**Please see additional Important Safety Information throughout and full Prescribing Information enclosed.**

## IMPORTANT SAFETY INFORMATION

**Contraindications:** TYMLOS is contraindicated in patients with a history of systemic hypersensitivity to abaloparatide or to any component of the product formulation. Reactions have included anaphylaxis, dyspnea, and urticaria.

**Risk of Osteosarcoma:** It is unknown whether TYMLOS will cause osteosarcoma in humans. Osteosarcoma has been reported in patients treated with a PTH-analog in the post marketing setting; however, an increased risk of osteosarcoma has not been observed in observational studies in humans. There are limited data assessing the risk of osteosarcoma beyond 2 years of TYMLOS use. Avoid use of TYMLOS for patients at an increased baseline risk for osteosarcoma including patients with open epiphysis (pediatric and young adult patients); metabolic bone diseases other than osteoporosis, including Paget's disease of the bone; bone metastases or a history of skeletal malignancies; prior external beam or implant radiation therapy involving the skeleton; or hereditary disorders predisposing to osteosarcoma.

**Orthostatic Hypotension:** Orthostatic hypotension may occur with TYMLOS, typically within 4 hours of injection. Associated symptoms may include dizziness, palpitations, tachycardia, or nausea, and may resolve by having the patient lie down. For the first several doses, TYMLOS should be administered where the patient can sit or lie down if necessary.

**Hypercalcemia:** TYMLOS may cause hypercalcemia. TYMLOS is not recommended in patients with pre-existing hypercalcemia or in patients who have an underlying hypercalcemic disorder, such as primary hyperparathyroidism, because of the possibility of exacerbating hypercalcemia.

**Hypercalciuria and Urolithiasis:** TYMLOS may cause hypercalciuria. It is unknown whether TYMLOS may exacerbate urolithiasis in patients with active or a history of urolithiasis. If active urolithiasis or pre-existing hypercalciuria is suspected, measurement of urinary calcium excretion should be considered.

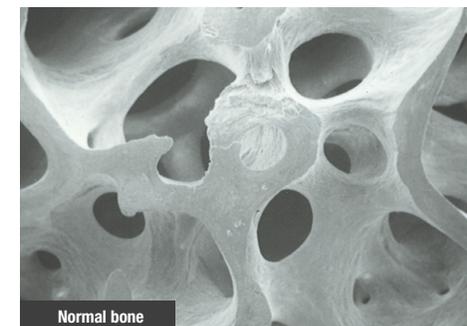
**Pregnancy and Lactation:** TYMLOS is not indicated for use in females of reproductive potential.

### Adverse Reactions:

- The most common adverse reactions (incidence  $\geq 2\%$ ) reported with TYMLOS in postmenopausal women with osteoporosis are hypercalciuria (11%), dizziness (10%), nausea (8%), headache (8%), palpitations (5%), fatigue (3%), upper abdominal pain (3%), and vertigo (2%).
- The most common adverse reactions (incidence  $\geq 2\%$ ) reported with TYMLOS in men with osteoporosis are injection site erythema (13%), dizziness (9%), arthralgia (7%), injection site swelling (7%), injection site pain (6%), contusion (3%), abdominal distention (3%), diarrhea (3%), nausea (3%), abdominal pain (2%), and bone pain (2%).



Osteoporotic bone



Normal bone

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## ANABOLIC FIRST = PATIENT FIRST

For postmenopausal women at **very high risk for fracture**, AACE/ACE recommend osteoanabolics, like TYMLOS.<sup>2</sup>

### START patients on an osteoanabolic<sup>2</sup>:

- T-score is  $\leq -3.0$  or worse
- Recent fracture or multiple fractures
- High risk for falls
- High FRAX score

### SWITCH patients to an osteoanabolic<sup>2</sup>:

- Intolerant to bisphosphonate/antiresorptive
- Progressive bone loss
- Recurrent fractures

In patients at very high risk of fracture,

**AACE/ACE guidelines provide evidence supporting superiority of anabolic agents over antiresorptive agents at rebuilding bone mineral density (BMD).<sup>2</sup>**

### Treatment sequence matters.

The 2024 ASBMR/BHOF Task Force outlines a goal-directed approach to osteoporosis care in which anabolic therapy may be used first in patients with very high fracture risk, guided by bone density and fracture history.<sup>3\*</sup>

\*The 2024 ASBMR/BHOF position statement reflects expert opinion and is not intended as a clinical guideline.

AACE=American Association of Clinical Endocrinologists; ACE=American College of Endocrinology; ASBMR=American Society for Bone and Mineral Research; BHOF=Bone Health and Osteoporosis Foundation.

# FOUNDATION FIRST<sup>1,4</sup>

TYMLOS works to address the architecture of bone, helping to improve bone strength.<sup>1\*</sup>

\*According to preclinical animal studies.<sup>1</sup>

## REBALANCE

TYMLOS binds to and acts as an agonist on the parathyroid hormone 1 (PTH1) receptor to **rebalance** the body's natural bone remodeling cycle.<sup>1</sup>

## REMOVE

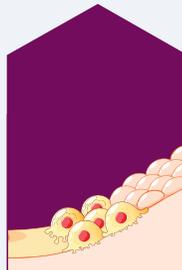
Osteocytes detect damage and signal osteoclasts to **remove** old bone.<sup>5</sup>



MODEST RESORPTION<sup>1</sup>

## REBUILD

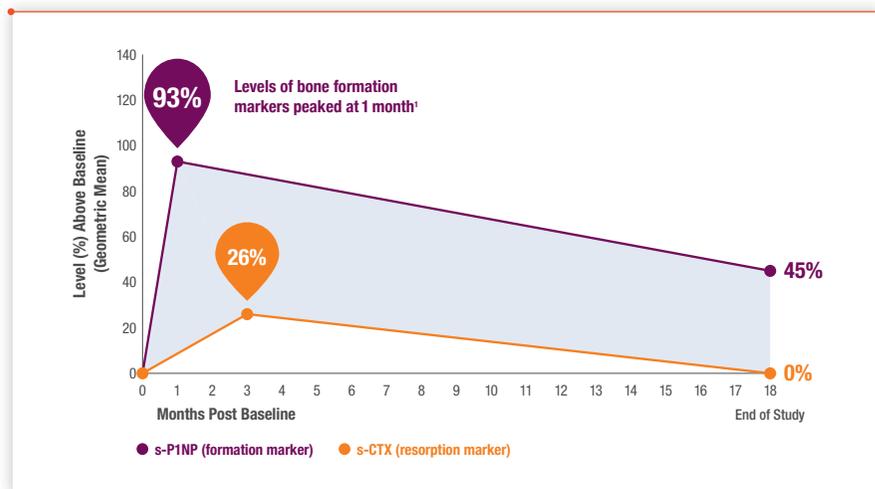
TYMLOS stimulates osteoblastic activity, rapidly shifting the balance towards formation over resorption.<sup>1</sup>



RAPID, SUSTAINED BONE FORMATION<sup>1</sup>

For illustrative purposes only. Not intended to imply clinical efficacy.

Greater increase of bone formation over bone resorption markers was sustained for the duration of therapy in postmenopausal women<sup>1,6</sup>



Postmenopausal women: TYMLOS group: n=189; Placebo group: n=184.

s-CTX = serum carboxy-terminal cross-linked telopeptide of type 1 collagen; s-P1NP = serum procollagen type 1 N-terminal propeptide.

Please see full Important Safety Information on page 2 and enclosed full Prescribing Information.

# REMODELING ANABOLIC IN ACTION<sup>1,6</sup>

For postmenopausal women with osteoporosis at high risk for fracture

**ACTIVE STUDY DESIGN:** A phase 3, randomized, multicenter, double-blind, placebo- and active-controlled clinical trial in postmenopausal women with osteoporosis (N=2,463) aged 49 to 86 years (mean age 69 years) who were randomized to receive TYMLOS 80 mcg (n=824), placebo (n=821), or teriparatide 20 mcg (n=818) subcutaneously once daily for 18 months. The **primary endpoint** was incidence of new vertebral fractures with TYMLOS vs placebo. **Secondary endpoints** included incidence of nonvertebral fractures.<sup>1,6</sup>

This study was not designed or powered to show, nor can these data be interpreted as evidence of, superiority or noninferiority to teriparatide.

Nonvertebral fractures excluded fractures of the sternum, patella, toes, fingers, skull, and face, and those associated with high trauma.<sup>1,6</sup>

**EXTENSION STUDY DESIGN:** A 24-month, open-label, follow-up study of postmenopausal women who completed the 18-month ACTIVE trial and enrolled in the extension study where they transitioned to alendronate 70 mg weekly as follow-on maintenance therapy from either TYMLOS 80 mcg (n=558) or placebo (n=581).<sup>1,7,8</sup> The **primary endpoint** was the percent of patients with  $\geq 1$  new vertebral fracture from ACTIVE study baseline through 6 months of alendronate treatment (Month 25).<sup>8</sup> **Secondary endpoints** included the percent of patients with  $\geq 1$  new nonvertebral fracture from ACTIVE study baseline through Month 25.<sup>8</sup>

Nonvertebral fractures excluded fractures of the sternum, patella, toes, fingers, skull, and face, and those associated with high trauma.<sup>8</sup>

Please see study results on the following pages

## IMPORTANT SAFETY INFORMATION (cont'd)

**Risk of Osteosarcoma:** It is unknown whether TYMLOS will cause osteosarcoma in humans. Osteosarcoma has been reported in patients treated with a PTH-analog in the post marketing setting; however, an increased risk of osteosarcoma has not been observed in observational studies in humans. There are limited data assessing the risk of osteosarcoma beyond 2 years of TYMLOS use. Avoid use of TYMLOS for patients at an increased baseline risk for osteosarcoma including patients with open epiphysis (pediatric and young adult patients); metabolic bone diseases other than osteoporosis, including Paget's disease of the bone; bone metastases or a history of skeletal malignancies; prior external beam or implant radiation therapy involving the skeleton; or hereditary disorders predisposing to osteosarcoma.

## IMPACT ON KEY SKELETAL SITES

TYMLOS demonstrated significant fracture risk reduction vs placebo in postmenopausal women with osteoporosis at high risk for fracture.<sup>1,6</sup>

**86%**

relative risk reduction in new vertebral fractures<sup>1\*</sup>

**3.6% ARR** (95% CI: 2.1, 5.4) at 18 months (fracture incidence: 0.6% TYMLOS vs 4.2% placebo).

\* $P < 0.0001$  (95% CI: 61, 95); TYMLOS (n=690) vs placebo (n=711). Modified ITT population, which includes patients who had both pretreatment and posttreatment spine radiographs.

**43%**

relative risk reduction in new nonvertebral fractures (including hip)<sup>1†</sup>

**2.0% ARR** at 19 months (fracture incidence: 2.7% TYMLOS vs 4.7% placebo).<sup>1,6</sup>

†Log-rank test  $P=0.049$ ; TYMLOS (n=824) vs placebo (n=821). Nonvertebral fractures were measured using the ITT population at 19 months (the entire observational period included 18 months of treatment plus 1 month of follow-up). Nonvertebral fractures excluded fractures of the sternum, patella, toes, fingers, skull, and face, and those associated with high trauma.

▶ **The most common adverse reactions (incidence  $\geq 2\%$ ) reported with TYMLOS in postmenopausal women with osteoporosis** are hypercalciuria (11%), dizziness (10%), nausea (8%), headache (8%), palpitations (5%), fatigue (3%), upper abdominal pain (3%), and vertigo (2%).<sup>1</sup>

ARR=absolute risk reduction; CI=confidence interval; RRR=relative risk reduction.

### IMPORTANT SAFETY INFORMATION (cont'd)

**Hypercalcemia:** TYMLOS may cause hypercalcemia. TYMLOS is not recommended in patients with pre-existing hypercalcemia or in patients who have an underlying hypercalcemic disorder, such as primary hyperparathyroidism, because of the possibility of exacerbating hypercalcemia.

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## SUSTAINED FRACTURE RISK REDUCTION<sup>1,7,8</sup>

Fracture risk reduction sustained with sequential therapy in postmenopausal women with osteoporosis at high risk for fracture: TYMLOS followed by alendronate.<sup>1,8,9</sup>

**87%**

relative risk reduction in new vertebral fractures<sup>1‡</sup>

**3.9% ARR** (95% CI: 2.1, 5.9) at 25 months (fracture incidence: 0.6% TYMLOS vs 4.4% placebo).

‡ $P < 0.0001$  (95% CI: 59, 96); TYMLOS (n=544) vs placebo (n=568). Results reported in the modified ITT population, which included patients who had both pretreatment and posttreatment spine radiographs.

**52%**

relative risk reduction in new nonvertebral fractures (including hip)<sup>1§</sup>

**2.9% ARR** (fracture incidence: 2.7% TYMLOS vs 5.6% placebo).<sup>1,8</sup>

§Log-rank test  $P=0.017$ ; TYMLOS (n=558) vs placebo (n=581). Nonvertebral fractures were assessed in the ITT population, with the percentage of patients experiencing  $\geq 1$  new nonvertebral fracture through Month 25 evaluated as a secondary endpoint. Nonvertebral fractures excluded fractures of the sternum, patella, toes, fingers, skull, and face, and those associated with high trauma.



**APPROVED FOR MEN WITH OSTEOPOROSIS AT HIGH RISK FOR FRACTURE.<sup>1</sup>**

For more information on the clinical trial in men, please visit [TYMLOShcp.com](http://TYMLOShcp.com).

For men and postmenopausal women with osteoporosis at high risk for fracture.

## FLEXIBILITY FOR PATIENTS

With TYMLOS, patients can self-inject daily without the need for monthly office visits for osteoporosis treatment. No refrigeration required after first use.<sup>1,10</sup>

### STORAGE AND HANDLING<sup>10</sup>

- Store with pen cap on.
- Do not freeze or expose to heat.
- Do not store with needle attached.
- Before first use: refrigerate between 36–46°F (2–8°C).
- After first use: store at room temperature between 68°F and 77°F (20°C and 25°C) for up to 30 days.

### DOSING CONSIDERATIONS

No dosage adjustment needed for mild, moderate, or severe renal impairment.<sup>1</sup>

### ADMINISTRATION GUIDANCE

Advise patients to receive their first several injections of TYMLOS where they can sit or lie down, if necessary, until they know how it affects them.<sup>1</sup>

**One daily routine. No monthly hassle.**

Visit [TYMLOShcp.com](https://TYMLOShcp.com) to learn more.



### IMPORTANT SAFETY INFORMATION (cont'd)

**Hypercalciuria and Urolithiasis:** TYMLOS may cause hypercalciuria. It is unknown whether TYMLOS may exacerbate urolithiasis in patients with active or a history of urolithiasis. If active urolithiasis or pre-existing hypercalciuria is suspected, measurement of urinary calcium excretion should be considered.

**Please see enclosed full Prescribing Information.**

**References:** 1. TYMLOS. Prescribing information. Radius Health, Inc. 2. Camacho PM, et al. *Endocr Pract.* 2020;26(Suppl 1):1-46. 3. Cosman F, et al. *J Bone Miner Res.* 2024;39(10):1393-1405. 4. Hattersley G, et al. *Endocrinology.* 2016;157(1):141-149. 5. Šromová V, et al. *Cells.* 2023;12(21):2576. 6. Miller PD, et al. *JAMA.* 2016;316(7):722-733. 7. Cosman F, et al. *Mayo Clin Proc.* 2017;92(2):200-210. 8. Bone HG, et al. *J Clin Endocrinol Metab.* 2018;103(8):2949-2957. 9. Data on file. Radius Health, Inc. 10. TYMLOS. Instructions for use. Radius Health, Inc.