

## THE CLINICAL PICTURE

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# Thinker's sign



**Figure 1.** Hyperpigmented, thickened skin on both thighs.

**A**N 88-YEAR-OLD WOMAN with chronic respiratory failure and on long-term oxygen therapy for chronic obstructive pulmonary disease (COPD) was admitted with increasing dyspnea. Physical examination revealed areas of hyperpigmentation and skin thickening on the distal third of both thighs (**Figure 1**). These alterations were characterized as elongated and hyperkeratotic.

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The patient had been repeatedly hospitalized for episodes of acute dyspnea aggravated by emotional distress and was instructed to relieve her symptoms by using pursed-lip breathing and the tripod position—ie, sitting down and leaning forward with the forearms resting on the thighs (**Figure 2**). This position can increase activity of accessory respiratory muscles during inspiration, which may relieve symptoms of dyspnea.

Mechanical pressure induced by friction of the elbows on the thighs may result in proliferation of the stratum corneum and the release of hemosiderin from erythrocytes, resulting in the skin changes seen in this patient, which because of the tripod positioning are known as



**Figure 2.** The tripod position to relieve dyspnea results in direct mechanical pressure of the elbows on the top of the thighs.

“thinker’s sign,” a term coined in 1963 by Rothenberg<sup>1</sup> to describe findings in patients with chronic pulmonary disease and advanced respiratory insufficiency. It is also referred to as the Dahl sign, based on a report by Dahl of similar findings in patients with emphysema.<sup>2</sup>

## REFERENCES

1. Rothenberg HJ. The thinker’s sign. *JAMA* 1963; 184:902–903. pmid:13975358
2. Dahl MV. Emphysema. *Arch Dermatol* 1970; 101(1):117. pmid:5416788

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