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Abstract: A new active-contraction visco-elastic numerical model of the pelvic floor (skeletal) muscle is presented. Our model includes all elements that represent the muscle constitutive behavior, contraction and relaxation. In contrast with the previous models, the activation function can be null. The complete equations are shown and exactly linearized. Small verification and validation tests are performed and the pelvis is modeled using the data from the intra-abdominal pressure tests. Copyright (C) 2009 John Wiley & Sons, Ltd.

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