

Movie S1. Blebbing behavior of CNC cells. Imaging started 10-15 minutes after cell transfer onto a fibronectin substrate. Upper movie: Brightfield timelapse imaging of a single CNC cell in conventional view. Blebs are visible as round, yolk platelet-free protrusions and display circus movement. Lower movie: Sideview imaging of a single CNC cell demonstrates bleb movement in vertical orientation. Images captured every 1 s over a period of 21 (lower movie) or 30 min (upper movie) using a long working distance 50x Epiplan NA 0.5 objective.

Movie S2. Continuous AFM indentation measurements of a single blebbing CNC cell. Left side: Sideview timelapse imaging during indentation measurements. Images captured every 1 s over a period of 17 min using a long working distance 50x Epiplan NA 0.5 objective. Right side: Young's Moduli obtained from indentation measurements were sorted into "bleb" (red dots) or "non-bleb" (blue dots) events and shown simultaneously with the corresponding sideview timelapse imaging.

Movie S3. Bleb formation during cell-cell detachment. Sideview timelapse imaging of two cells separating at a 0.2 $\mu\text{m/s}$ cantilever retraction speed after a contact time of 30 s. Left side: The cell-cell contact area remains bleb-free throughout the separation phase. Cells deformation during the separation phase, indicating a high separation force. Right side: The cell pair detaches prematurely after bleb movement through the contact zone. Cells do not deform during the separation phase. Images captured every 1 s over a period of 5.5 min using a 50x Epiplan NA 0.5 objective.