The Dynamic Aperture of LEP at High Energy, J.M. JOWETT, F. RUGGIERO, S. TREDWELL, CERN, Y. ALEXAHIN, PPL JINR - At the highest operating energies of LEP, the beam occupies a large phase space volume (emittances) because of the strong synchrotron radiation effects. The stable phase space volume required is comparable to the dynamic aperture, itself in large part determined by radiative effects such as beta-synchrotron coupling. Tune-dependences on the three oscillation amplitudes are also important. We review the present understanding of the physics determining the dynamic aperture, the computational techniques used to determine it and their relation to the most recent measurements. Improvements in dynamic aperture can be achieved by a variety of means including changes of optics, tunes, multipole correctors and the RF voltage distribution.