Packing phenomena of objects are very important for scientists. They are interested in finding efficient ways to pack objects and to understand what prevents the formation of the densest packing. Many studies have focused on sphere packings. However, spheres are only the simplest model with obvious differences to the possible anisotropic shapes found in nature, like sand or stones. The study of aspherical particle packings offers the possibility to assess the effect of the particle shape. This talk presents geometric features of packings of ellipsoidal particles and their differences from sphere packings.