

Hence, when the Gram stain is applied, a thorough washing with alcohol leaves the cells and gonococci colorless, while the pseudogonococci stand out in bold relief, stained darkly by the combined color of the aniline dye and the Gram stain.

In order to make the effect of the Gram stain more apparent, it is customary to restain the cells and gonococci with a contrasting color, in order that the true gonococci may be visible for direct comparison with the false.

*Preparation of the Specimen.*—The recognition of the gonococcus depends upon the proper preparation of the specimen—the proper performance of the Gram test—and while the test is not complicated, it is delicate, and, like so many other laboratory methods that appear entirely simple when one is familiar with them, it does not succeed at the hands of the beginner. Hence every practitioner is by no means competent to perform and interpret the Gram stain; but anyone who can smear a slide and focus a microscope may become competent by practice.

*The Smear.*—A very small drop of the pus to be examined is placed upon a clean glass slide. Upon this another slide is dropped, the two pressed together and slid apart. This leaves each covered with a thin film of pus (the thinner the better). Each is then dried by evaporation at a gentle heat and fixed by rapidly passing it three or four times through the flame of a spirit lamp or a Bunsen burner.

*The First Stain.*—One of the films is now covered with Paltauf's solution. This is left on for three minutes, the excess washed off with water (no water must be used if the Gram stain is to be employed), the glass dried in the flame and examined with the oil immersion lens. If no bacteria with the morphological characteristics of gonococci are seen after a careful examination, it is a waste of time to employ the Gram. But if what appear to be true gonococci are found, the Gram test is applied to the other cover-glass. The stain is applied for three minutes, as above described, but this time the excess of solution must be shaken from the specimen. *No water or alcohol* may be applied