In this paper, we present correlated logistic (CorrLog) model for multilabel image classification. CorrLog extends conventional logistic regression model into multilabel cases, via explicitly modeling the pairwise correlation between labels. In addition, we propose to learn the model parameters of CorrLog with elastic net regularization, which helps exploit the sparsity in feature selection and label correlations and thus further boost the performance of multilabel classification. CorrLog can be efficiently learned, though approximately, by regularized maximum pseudo likelihood estimation, and it enjoys a satisfying generalization bound that is independent of the number of labels. CorrLog performs competitively for multilabel image classification on benchmark data sets MULAN scene, MIT outdoor scene, PASCAL VOC 2007, and PASCAL VOC 2012, compared with the state-of-the-art multilabel classification algorithms.