show no essential deviation from those found in the total serum protein of normal individuals.

Conclusions. The total sulfur, total nitrogen and the amino acid content of total serum proteins from normal and arthritic subjects were compared. No essential difference in values between the two groups could be found, invalidating any suggestion that an altered composition of the total serum protein of arthritic patients reflects a disturbed sulfur metabolism.

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Inositol in Chick Nutrition.*

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Eastwood[1] showed inositol to be one of the bios factors required by certain yeasts. Recently Woolley[2, 3] has demonstrated that the mouse requires inositol for normal growth and the prevention of alopecia. Pavcek and Baum[4] have also found inositol to be effective in preventing lack of growth and "spectacled eye" in rats maintained on certain purified diets. These results together with the isolation of phytic acid from chicken blood by Rapoport[5] suggested that the chick might also require inositol.

Growth responses varying from 18 to 52 g in 4 weeks have been obtained upon the addition of inositol† to several different simplified chick rations (Table I). It is clear that inositol has a definite growth-promoting action although the response varies with the amount of inositol in the ration and the adequacy of the supplement used to supply unidentified growth factors.

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2 Woolley, D. W., *Science*, 1940, **92**, 384.

3 Woolley, D. W., PROC. SOC. EXP. BIOL. AND MED., 1941, **46**, 565.

4 Pavcek, P. L., and Baum, H. M., Abst. of Papers, St. Louis Meeting, Am. Chem. Soc., April, 1941.

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† i-inositol, C.P., Pfanstiehl.

TABLE I.
Growth Responses Obtained with Inositol.

Group	Ration	No. of chicks	Avg wt at 4 wks g
1	477	22	148
	" + .1% inositol	18	166
2	477-KR + 10% molasses	5	76
	" + " " + .1% inositol	5	121
3	" + " " + SLE eluate	11	167
	" + " " + " " + .1% inositol	11	203
4	477 + SLE eluate	6	156
	" + " " + .1% inositol	6	208
5	477 + alc. sol. yeast eluate	12	162
	" + " " " " + .1% inositol	12	196

Ration 477 is the same as ration 470 described previously[6] with the following additions: 3% of extracted kidney residue, .15% choline, 15 mg of pantothenic acid, 100 mg of nicotinic acid, and 4 mg of pyridoxine per kilo. The thiamine and riboflavin content have been raised to 3 and 4 mg per kilo respectively and additional $MnSO_4$ has been added to raise the level of manganese to approximately 60 p.p.m. Ten percent of blackstrap molasses replaced kidney residue in groups 2 and 3 as a source of the antidermatitis factor previously studied.[7] SLE eluate designates a norite eluate prepared from solubilized liver extract‡ by adsorption at pH 3 and elution with 5% ammonia.

These results extend our knowledge of the rôle of inositol in the nutrition of the mouse, rat, and yeast to that of the chick as well. No pathological symptoms other than lack of growth have been observed. However, it is quite probable that our rations are not completely devoid of inositol and the studies are being continued in an attempt to obtain more satisfactory rations.

[6] Hegsted, D. M., Oleson, J. J., Elvehjem, C. A., and Hart, E. B., *Poul. Sci.*, 1940, **19**, 167.

[7] Hegsted, D. M., Oleson, J. J., Mills, R. C., Elvehjem, C. A., and Hart, E. B., *J. Nutr.*, 1940, **20**, 599.

‡ Wilson Laboratories.